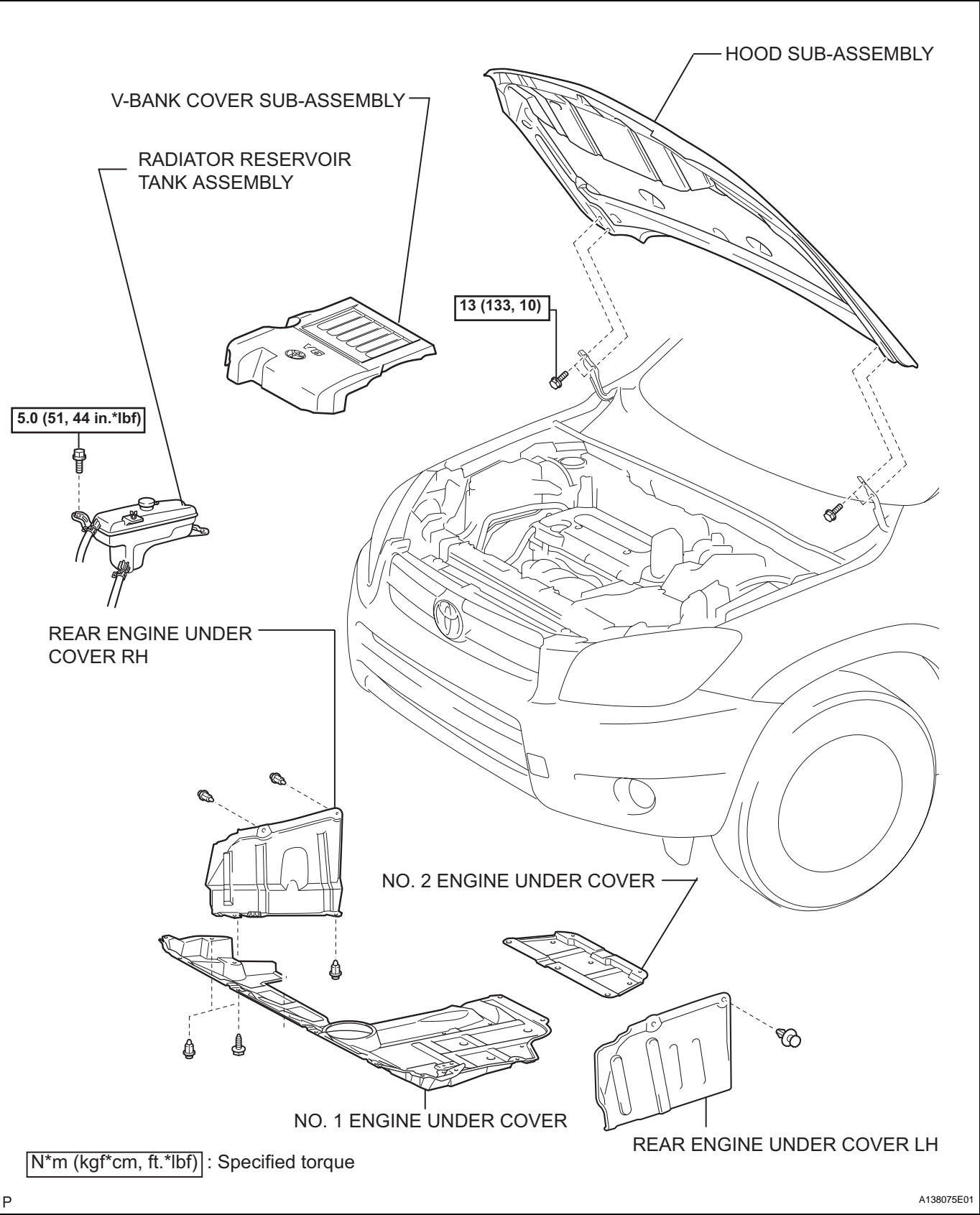
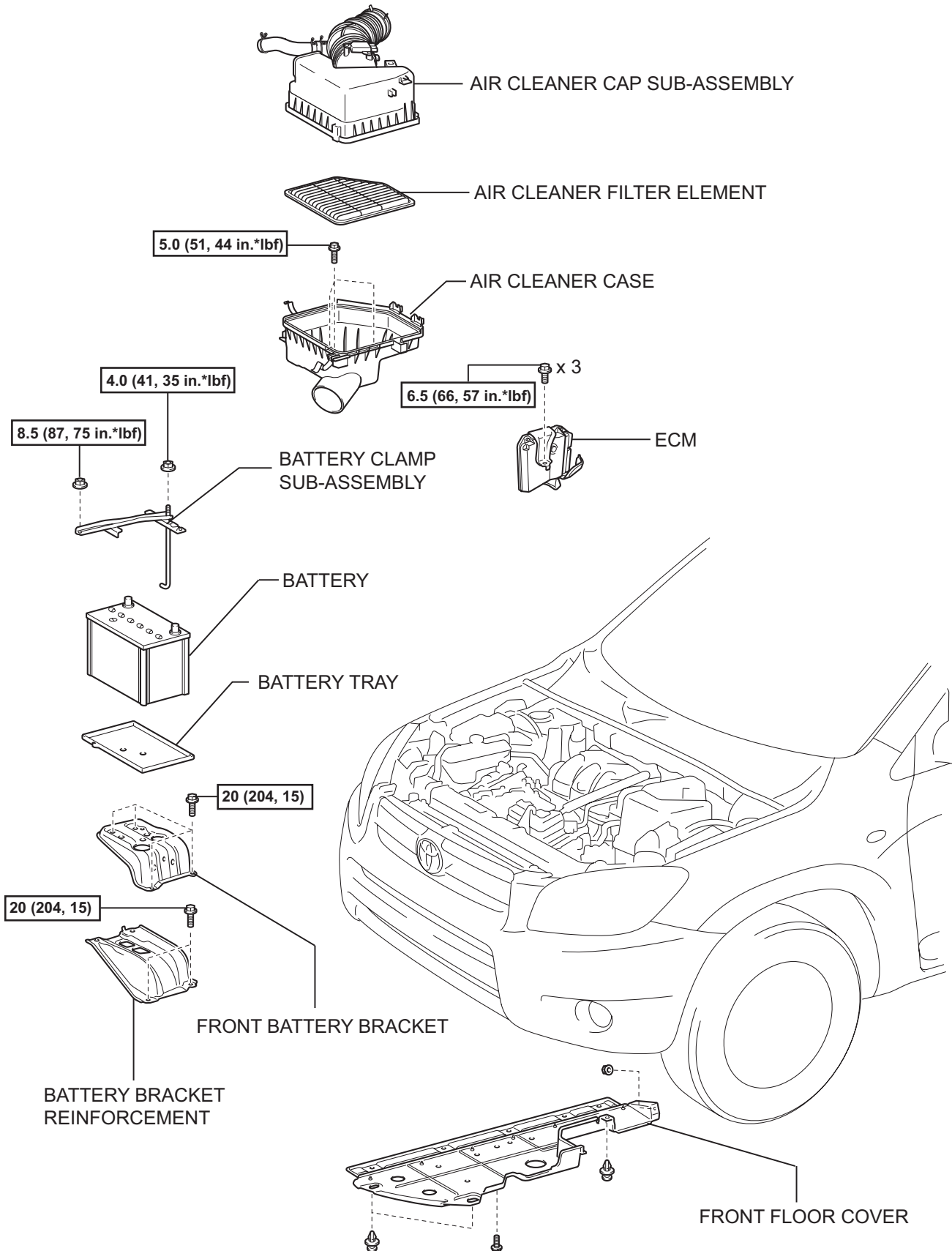


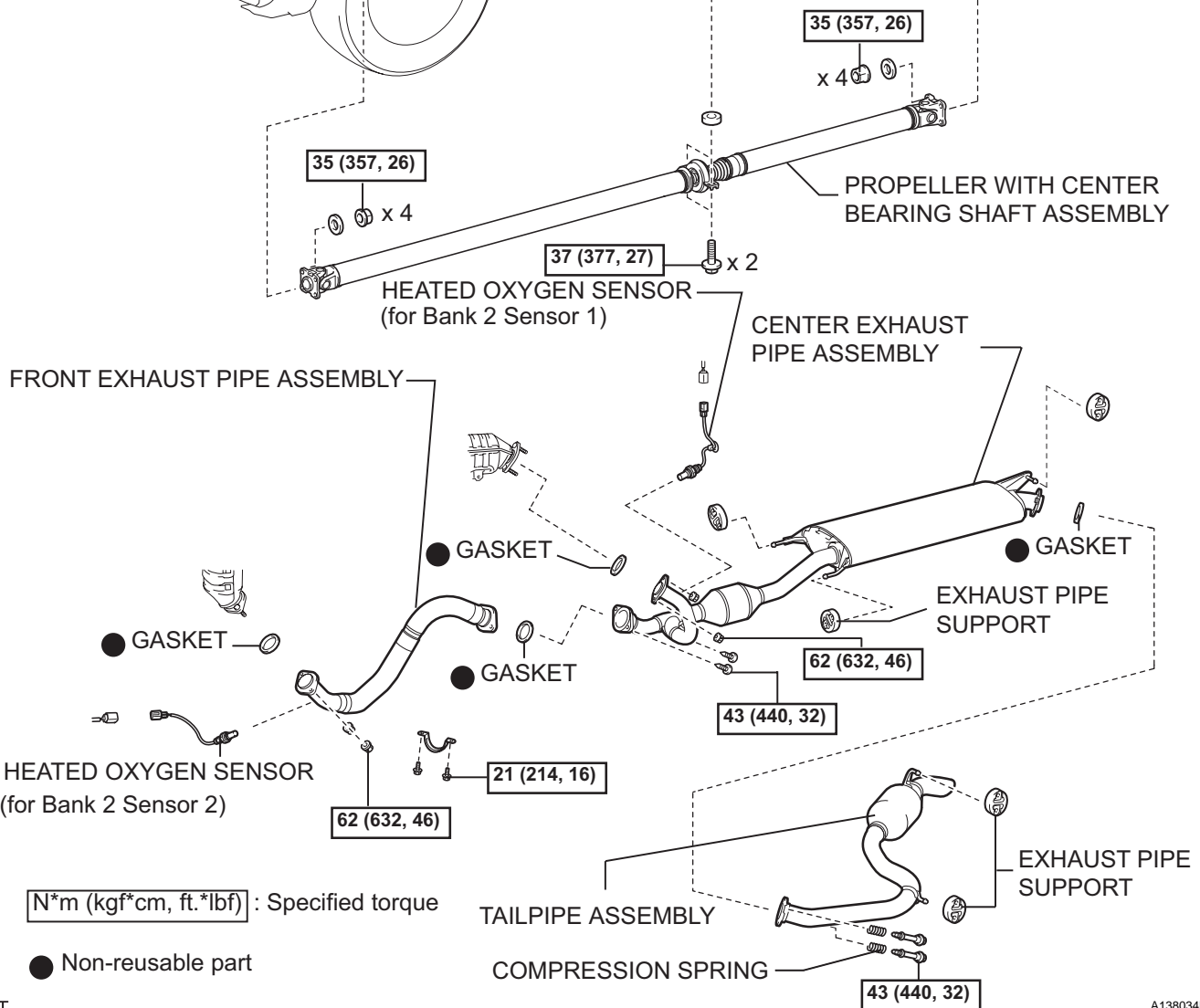
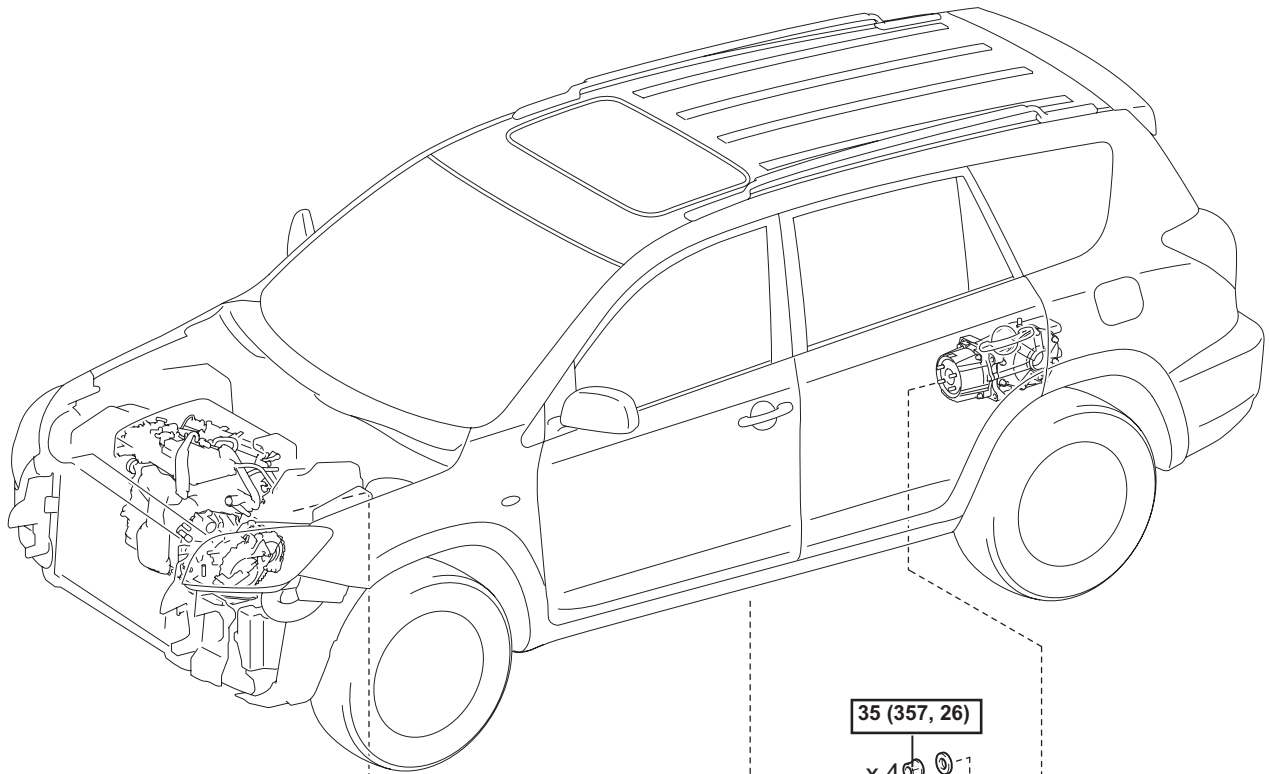
ENGINE ASSEMBLY

COMPONENTS

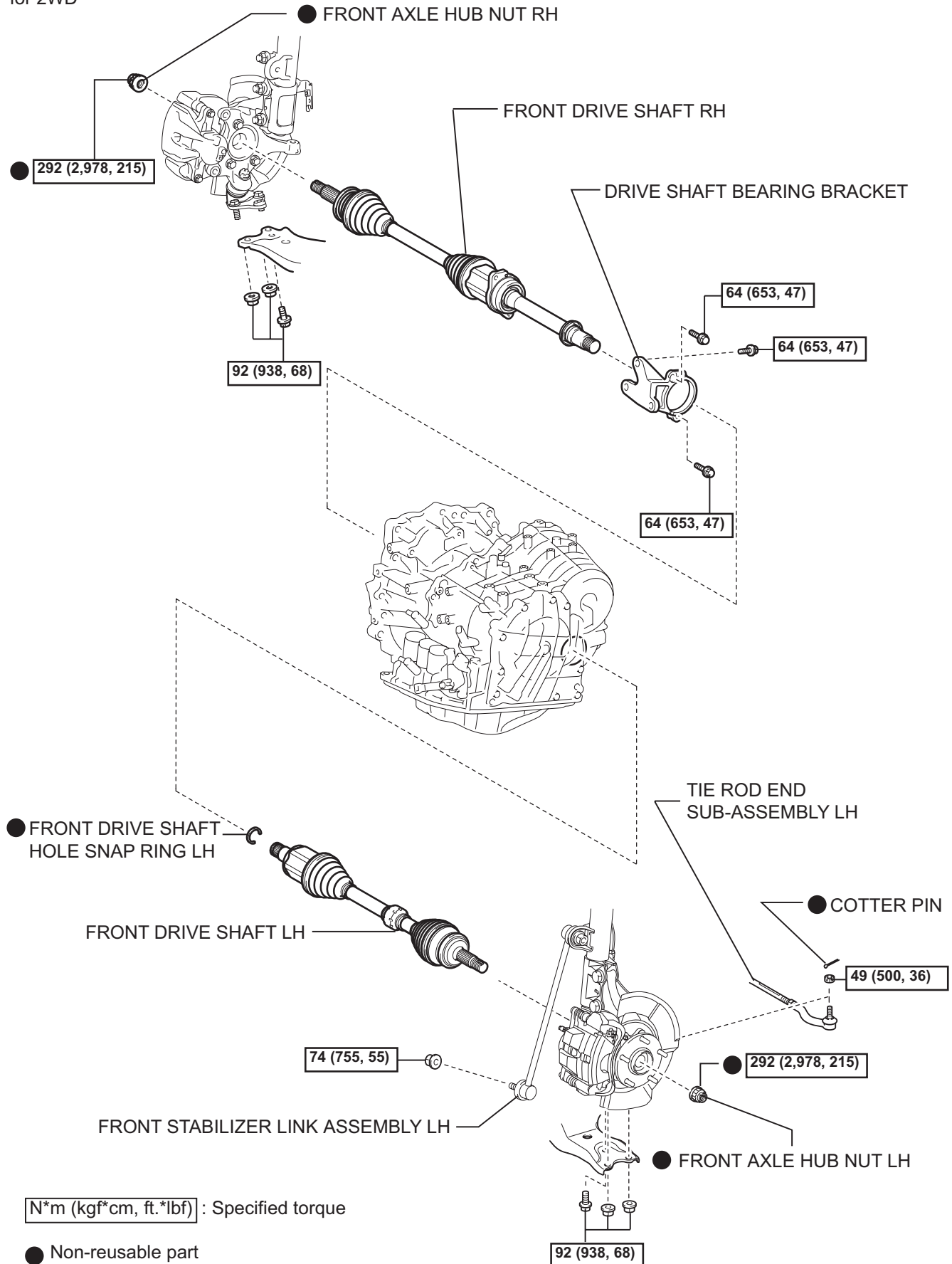




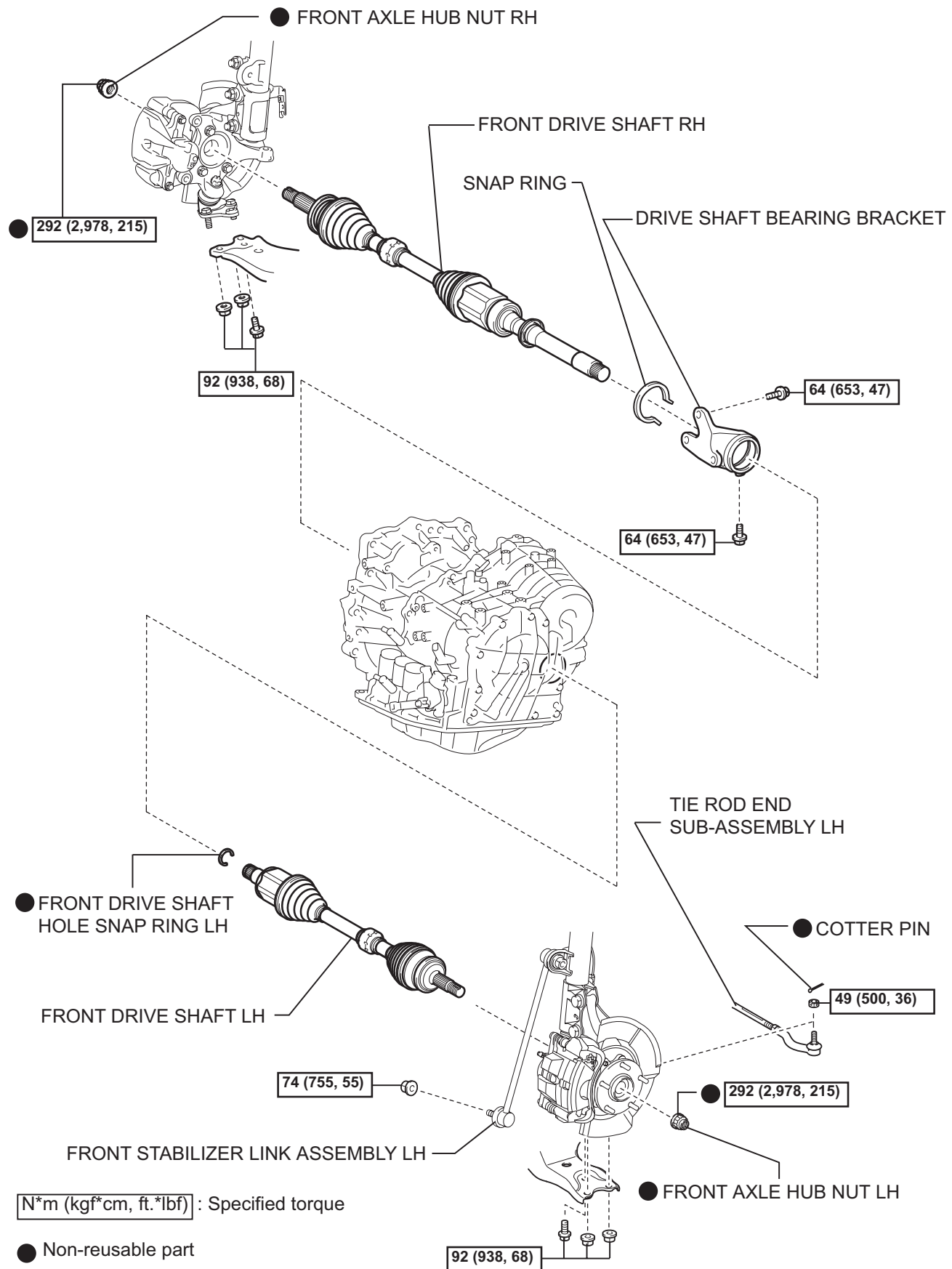
N\*m (kgf\*cm, ft.\*lbf) : Specified torque

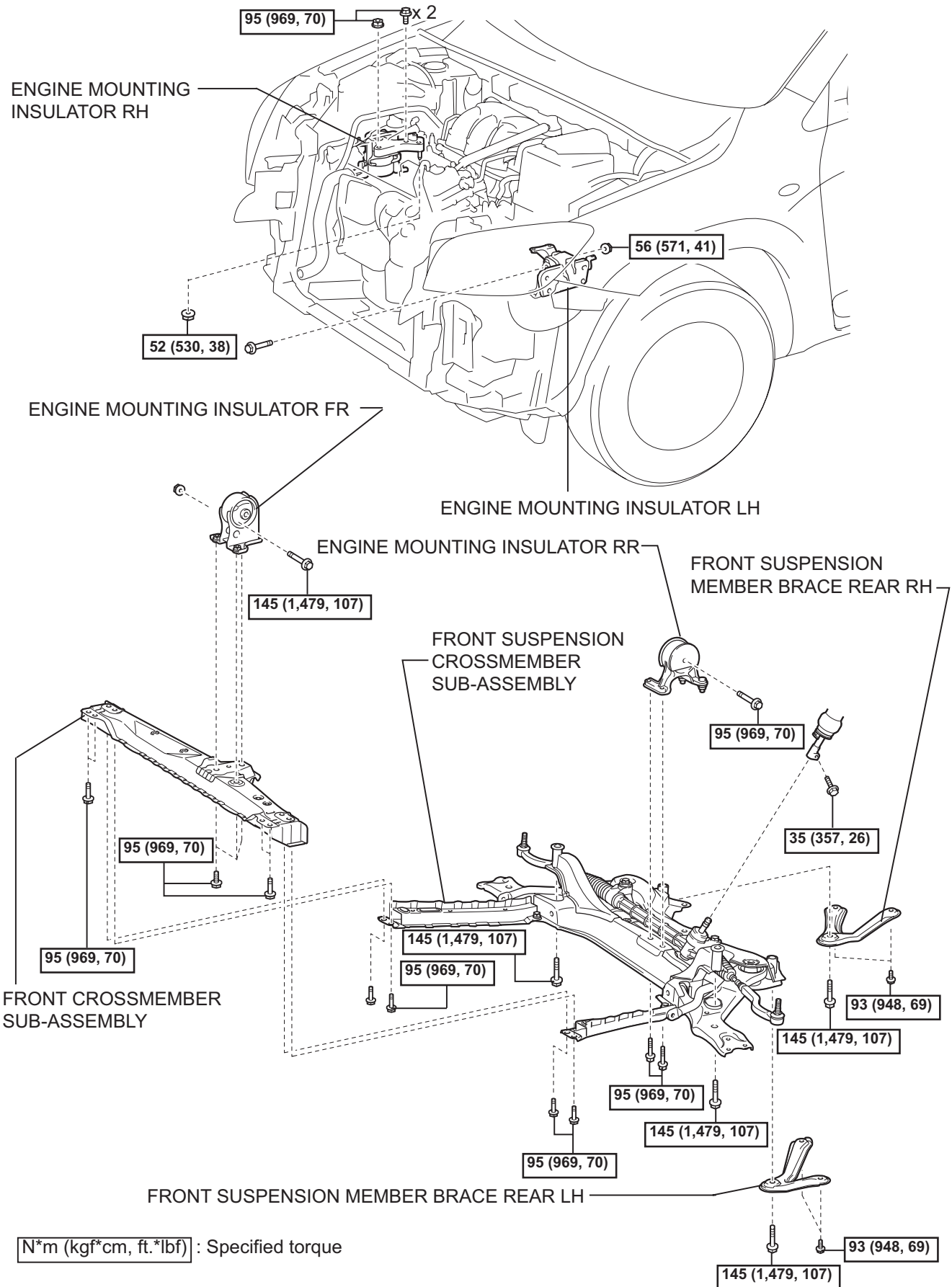


for 2WD

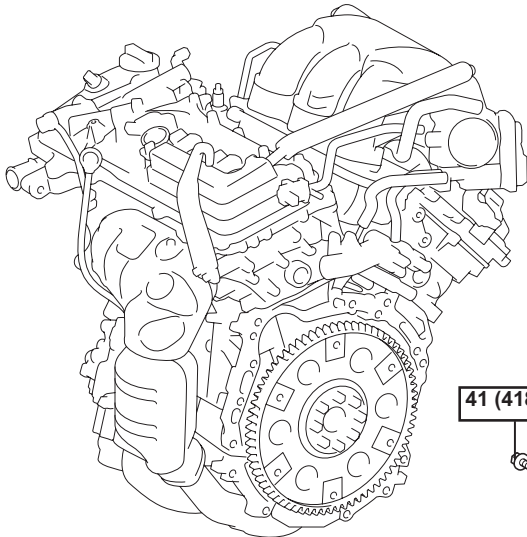
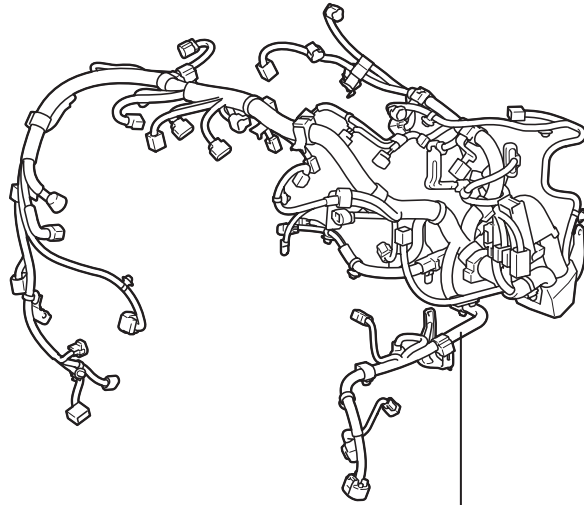
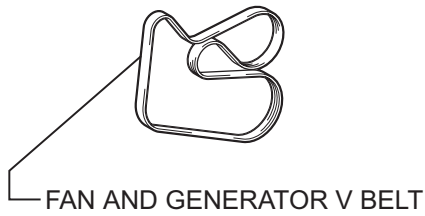


for 4WD



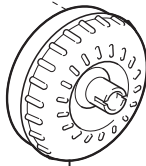


for 2WD



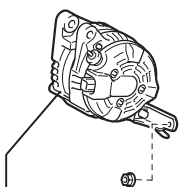
41 (418, 30)

x 3

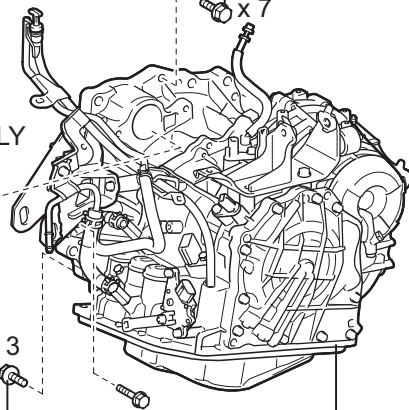


64 (653, 47)

x 7



GENERATOR ASSEMBLY



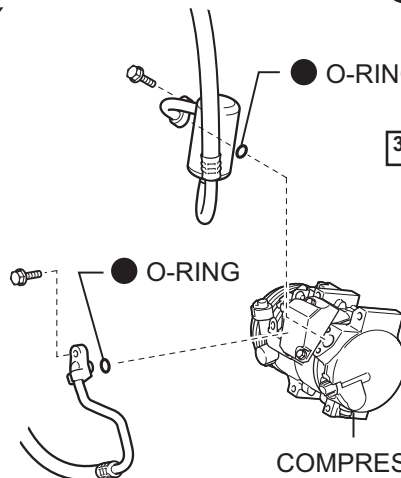
O-RING

x 3

x 2

37 (377, 27)

37 (377, 27)

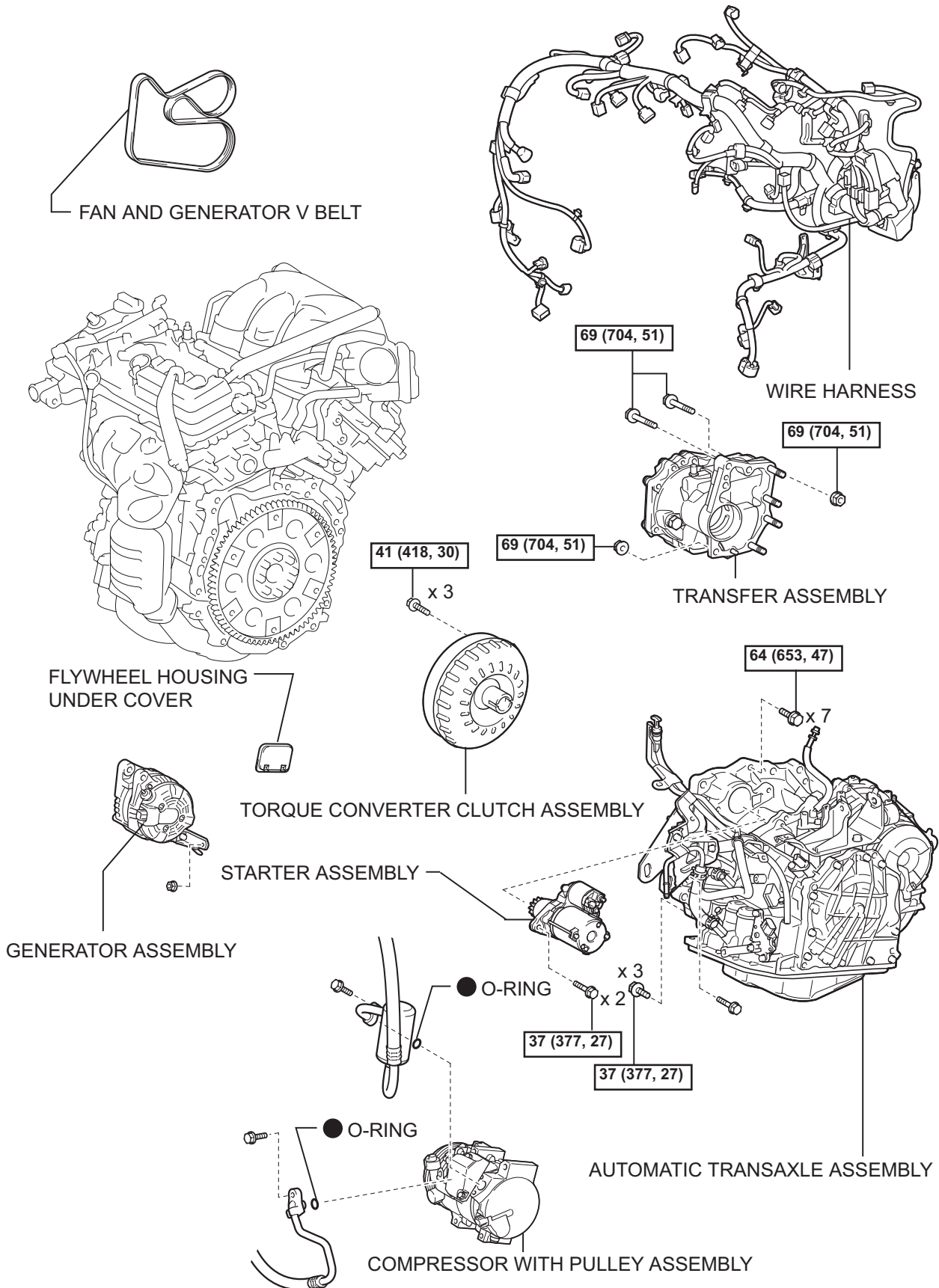


O-RING

N\*m (kgf\*cm, ft.\*lbf) : Specified torque ● Non-reusable part



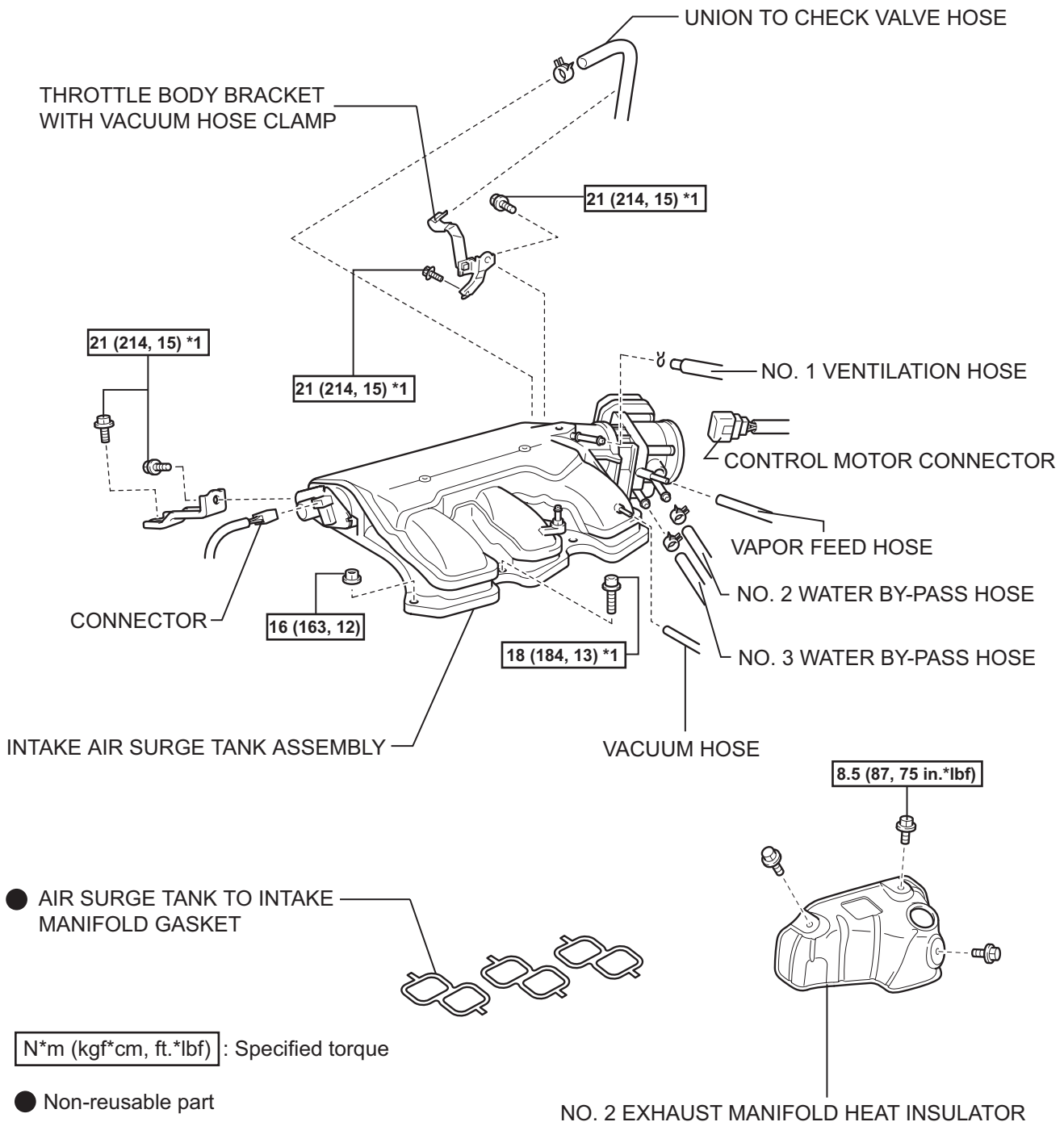
for 4WD

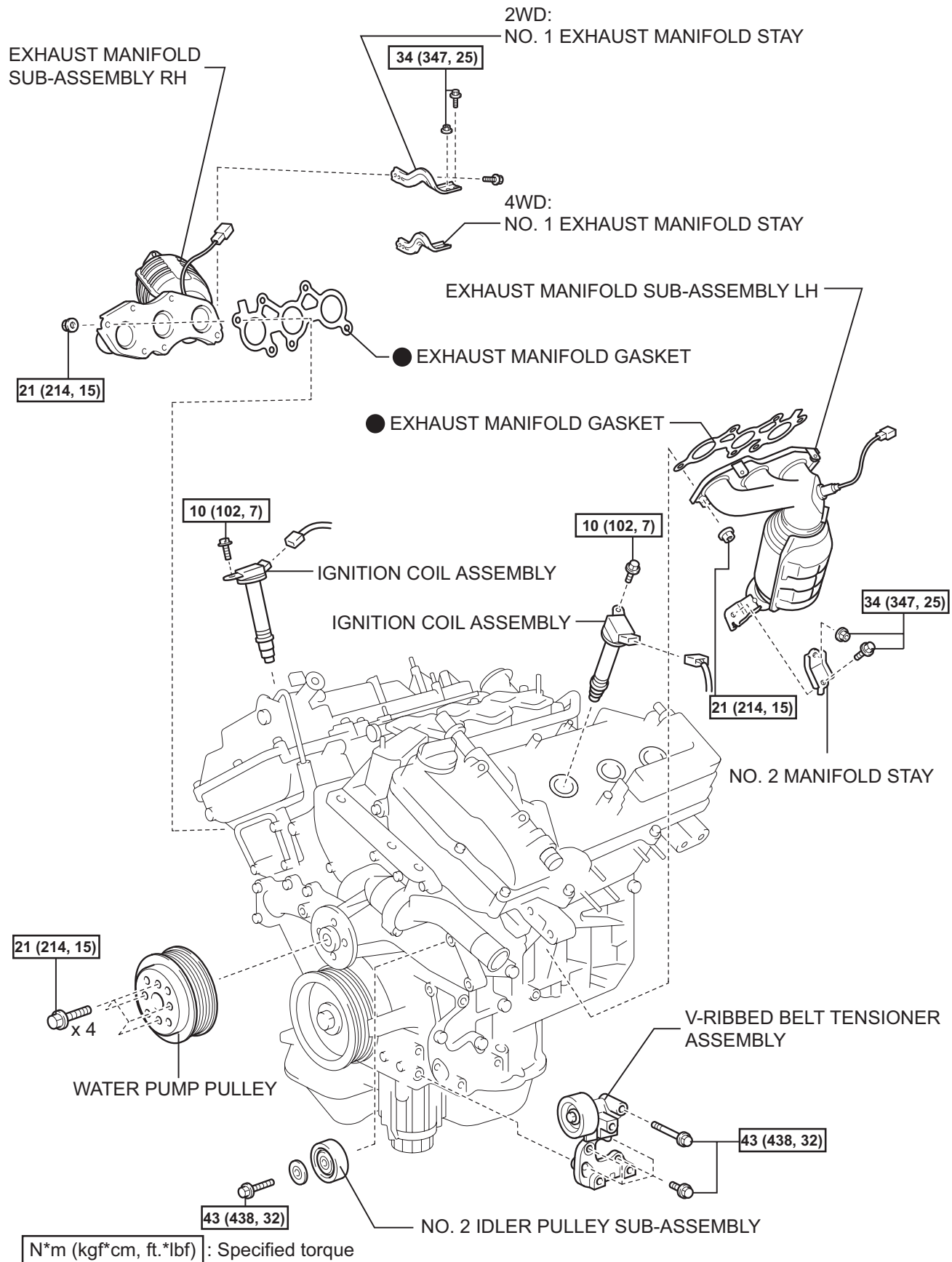


N\*m (kgf\*cm, ft.\*lbf) : Specified torque ● Non-reusable part

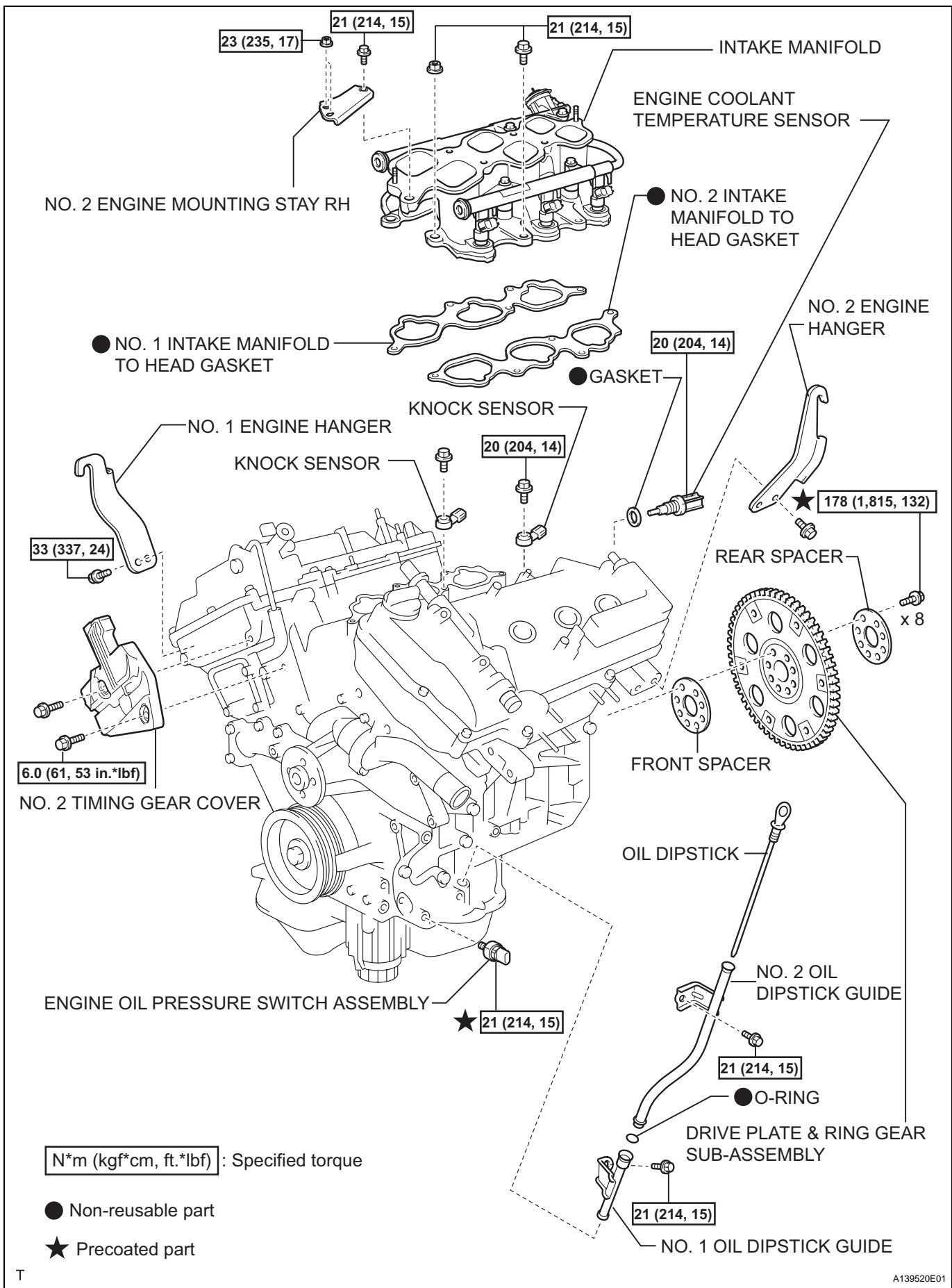
EM





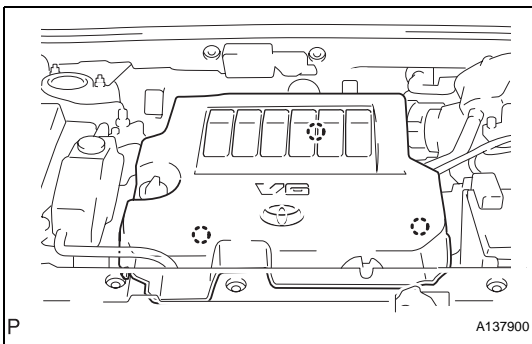


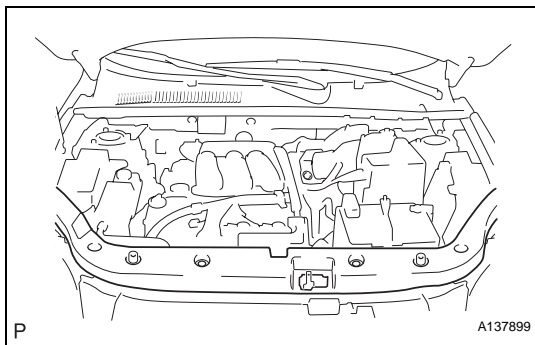
EM



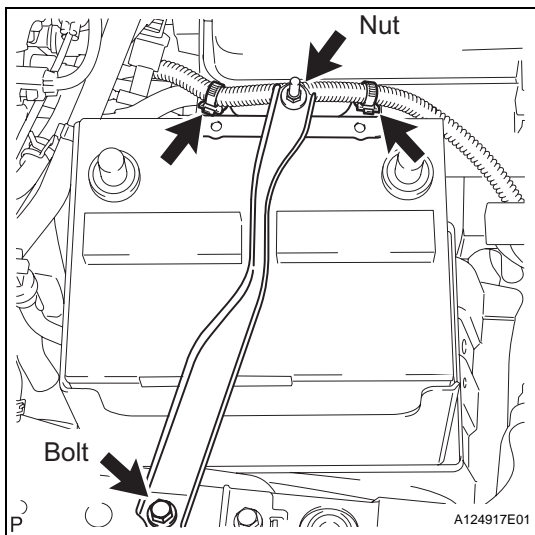
## REMOVAL

1. **DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM** (See page [AC-172](#))
2. **DISCHARGE FUEL SYSTEM PRESSURE** (See page [FU-13](#))
3. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**  
**CAUTION:**  
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
4. **REMOVE NO. 1 ENGINE UNDER COVER**  
(a) Remove the 4 bolts, 12 clips and under cover.
5. **REMOVE REAR ENGINE UNDER COVER RH**  
(a) Remove the 2 clips and under cover.
6. **REMOVE REAR ENGINE UNDER COVER LH**  
(a) Remove the 2 clips and under cover.
7. **REMOVE NO. 2 ENGINE UNDER COVER**  
(a) Remove the 2 clips and under cover.
8. **REMOVE FRONT FLOOR COVER** (See page [FU-34](#))
9. **DRAIN ENGINE COOLANT** (See page [CO-8](#))
10. **DRAIN ENGINE OIL** (See page [LU-4](#))
11. **DRAIN AUTOMATIC TRANSAXLE FLUID**  
(a) 2WD:  
Drain automatic transaxle fluid (see page [AX-172](#)).  
(b) 4WD:  
Drain automatic transaxle fluid (see page [AX-173](#))
12. **DRAIN TRANSFER OIL (for 4WD)**
13. **REMOVE HOOD SUB-ASSEMBLY** (See page [ED-4](#))
14. **REMOVE V-BANK COVER SUB-ASSEMBLY**  
(a) Detach the 3 clips and remove the V-bank cover.

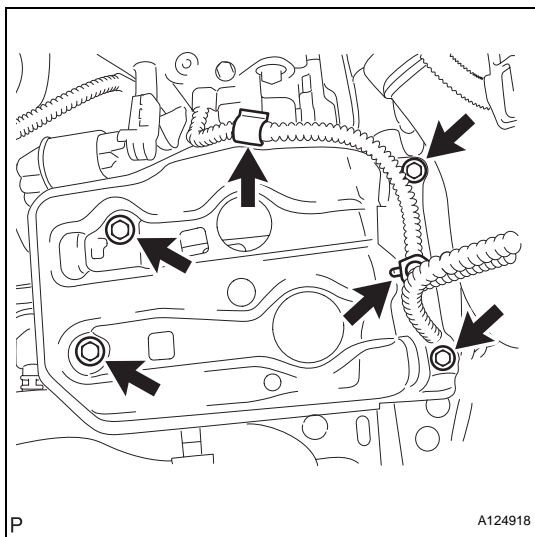
**EM**

**15. REMOVE RADIATOR SUPPORT OPENING COVER**

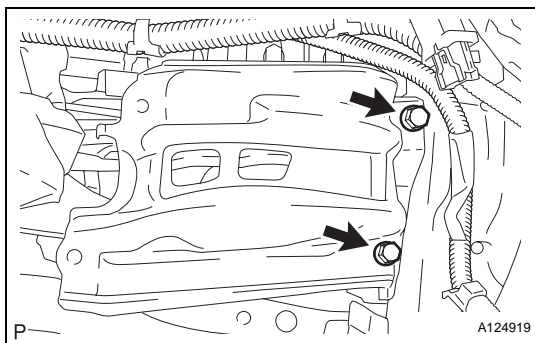
- (a) Remove the 9 clips and cover.

**16. REMOVE BATTERY CLAMP SUB-ASSEMBLY**

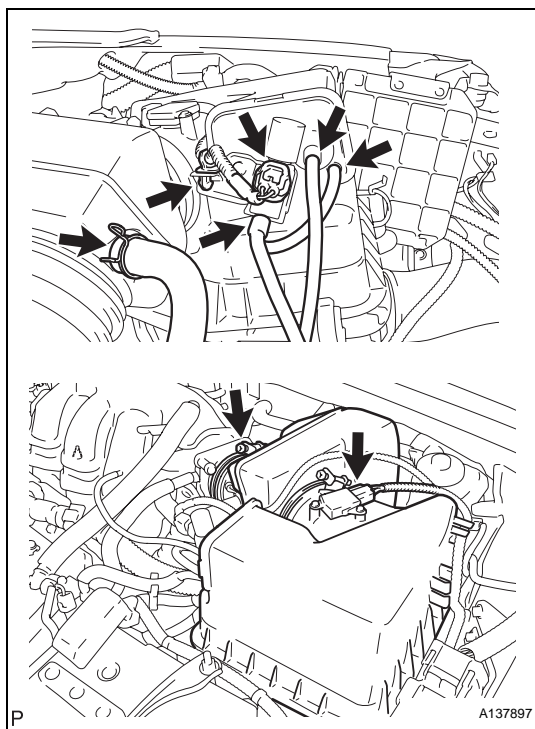
- (a) Remove the bolt and loosen the nut.  
(b) Detach the 2 wire harness clamps.  
(c) Detach the hook of the battery clamp from the battery bracket front, and then remove the battery clamp.

**17. REMOVE BATTERY****18. REMOVE FRONT BATTERY BRACKET**

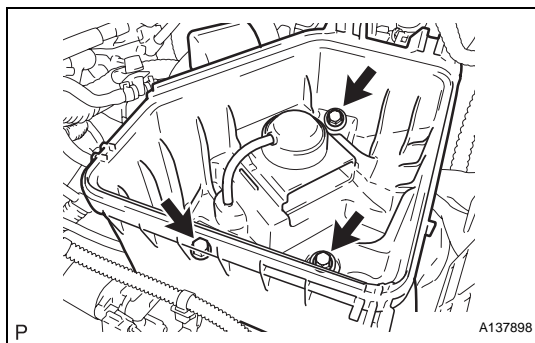
- (a) Detach the 2 wire harness clamps.  
(b) Remove the 4 bolts and front bracket.

**19. REMOVE BATTERY BRACKET REINFORCEMENT**

- (a) Remove the 2 bolts and bracket reinforcement.

**20. REMOVE AIR CLEANER CAP SUB-ASSEMBLY**

- (a) Disconnect the mass air flow meter connector.
- (b) Disconnect the VSV (air intake control) connector.
- (c) Disconnect the wire harness clamp and 3 vacuum hoses.
- (d) Disconnect the No. 2 ventilation hose from the air cleaner hose.
- (e) Loosen the No. 1 air cleaner hose clamp.
- (f) Unfasten the 2 hook clamps, and then remove the air cleaner cap.
- (g) Remove the air cleaner filter element from the air cleaner case.

**21. REMOVE AIR CLEANER CASE**

- (a) Disconnect the harness clamp.
- (b) Remove the 3 bolts and air cleaner case.

**22. DISCONNECT HOSES AND CONNECTORS**

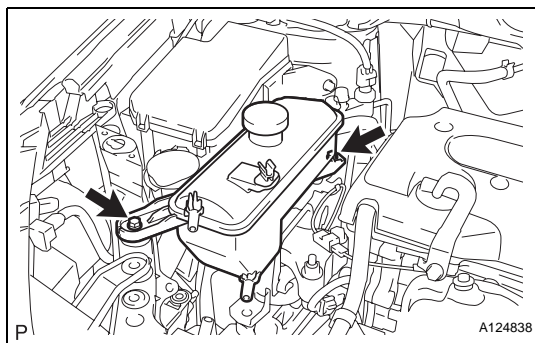
- (a) Remove the engine room junction block cover (upper).
- (b) Remove the nut and disconnect the engine room junction block cover (side) with 3 connectors and wire.
- (c) Remove the nut and disconnect the starter wire.
- (d) Disconnect the fuel hoses.
- (e) Disconnect the 2 heater hoses.
- (f) Disconnect the 2 ECM connectors.

**23. REMOVE ECM (See page [ES-470](#))****24. REMOVE RADIATOR RESERVOIR TANK ASSEMBLY**

- (a) Remove the 2 bolts, 2 hoses and reservoir tank.

**25. REMOVE DISCHARGE HOSE SUB-ASSEMBLY (See page [AC-220](#))****26. DISCONNECT SUCTION HOSE SUB-ASSEMBLY (See page [AC-220](#))****27. DISCONNECT RADIATOR HOSE INLET****28. DISCONNECT RADIATOR HOSE OUTLET****29. DISCONNECT OIL COOLER HOSE****30. DISCONNECT TRANSMISSION CONTROL CABLE ASSEMBLY**

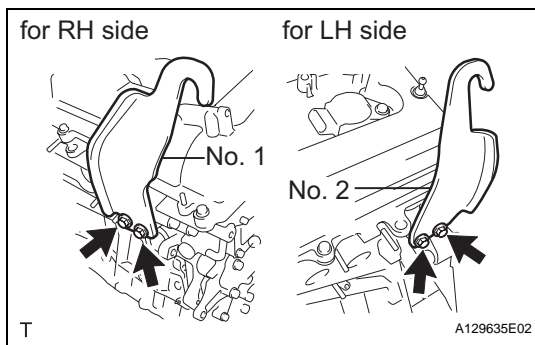
- (a) 2WD:  
Disconnect the control cable (see page [AX-154](#)).





- (b) 4WD:  
Disconnect the control cable (see page [AX-154](#)).

31. REMOVE FRONT EXHAUST PIPE ASSEMBLY (See page [EX-3](#))
32. REMOVE CENTER EXHAUST PIPE ASSEMBLY (See page [EX-2](#))
33. REMOVE PROPELLER WITH CENTER BEARING SHAFT ASSEMBLY (See page [PR-3](#))
34. REMOVE FRONT WHEELS
35. REMOVE FRONT AXLE HUB NUT LH
  - (a) Remove the hub nut (see page [AH-8](#)).
36. REMOVE FRONT AXLE HUB NUT RH
  - (a) Remove the hub nut (see page [AH-8](#)).
37. DISCONNECT FRONT STABILIZER LINK ASSEMBLY LH (See page [SP-30](#))
38. DISCONNECT FRONT STABILIZER LINK ASSEMBLY RH (See page [SP-30](#))
39. DISCONNECT STEERING INTERMEDIATE SHAFT (See page [PS-44](#))
40. DISCONNECT TIE ROD END SUB-ASSEMBLY RH (See page [PS-42](#))
41. DISCONNECT TIE ROD END SUB-ASSEMBLY LH (See page [PS-42](#))
42. REMOVE FRONT DRIVE SHAFT LH
  - (a) 2WD:  
Remove the drive shaft (see page [DS-10](#)).
  - (b) 4WD:  
Remove the drive shaft (see page [DS-43](#)).
43. REMOVE FRONT DRIVE SHAFT RH
  - (a) 2WD:  
Remove the drive shaft (see page [DS-10](#)).
  - (b) 4WD:  
Remove the drive shaft (see page [DS-43](#)).
44. REMOVE ENGINE WITH TRANSAXLE
  - (a) Install the No. 1 and No. 2 engine hangers with the 4 bolts as shown in the illustration.  
**Torque: 33 N\*m (337 kgf\*cm, 24 ft.\*lbf)**



Part Name	Part No.
No. 1 engine hanger	12281-31120
No. 2 engine hanger	12282-31100
Bolt	91671-10825

**HINT:**

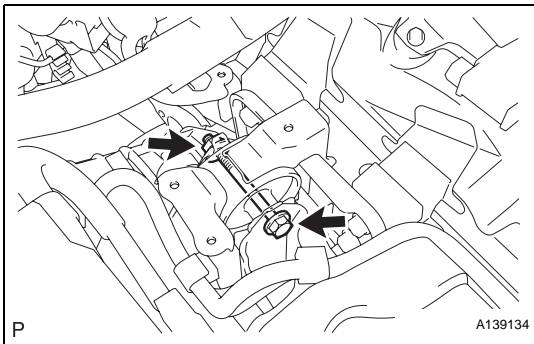
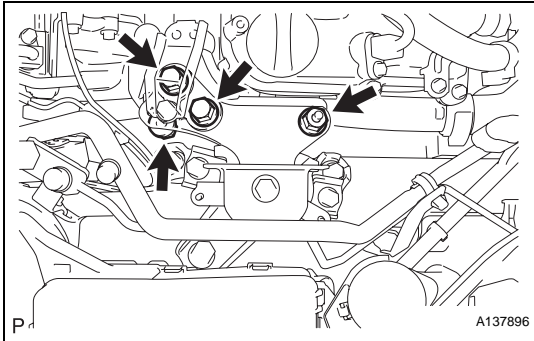
- Insert the claw of the hanger into hole of the cylinder head.
- Fit the fork part of the hanger onto the rib of the cylinder head.

- (b) Install an engine sling device to the engine and hold the engine with a chain block.

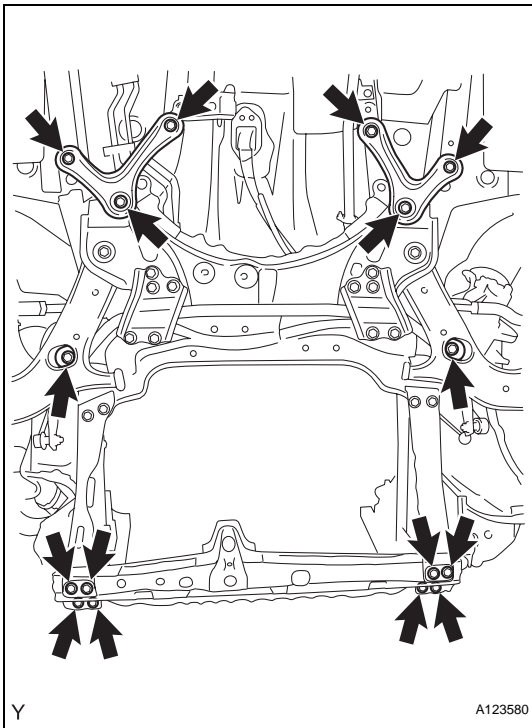
**CAUTION:**

**Do not raise the engine more than necessary. If the engine is raised excessively, the vehicle may also be lifted up.**

- (c) Set an engine lifter underneath the engine.
- (d) Remove the column hole cover. Loosen the bolt holding the intermediate shaft, and slide the intermediate shaft.
- (e) Put matchmarks on the intermediate shaft and pinion.
- (f) Remove the 2 bolts and 2 nuts, and disconnect the engine mounting insulator RH.



- (g) Remove the bolt and nut, and disconnect the engine mounting insulator LH.



- (h) Remove the 6 bolts and front suspension member brace rear RH and LH.
- (i) Remove the 6 bolts, crossmember and suspension member.
- (j) Using the chain block, slowly remove the engine from the vehicle and the intermediate shaft from the pinion. Then set the engine on the engine lifter.

**NOTICE:**

- Make sure that the engine is clear of all wiring and hoses.
- While lowering the engine from the vehicle, do not allow it to contact the vehicle.

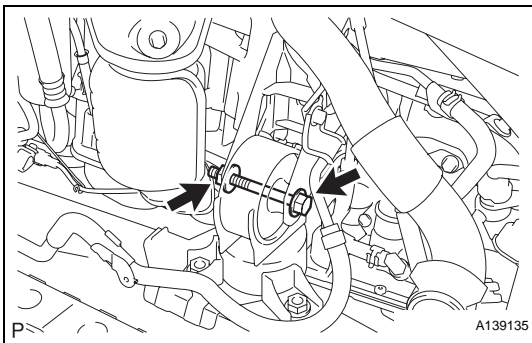
**HINT:**

Place the engine on wooden blocks or an equivalent so that the engine is level.

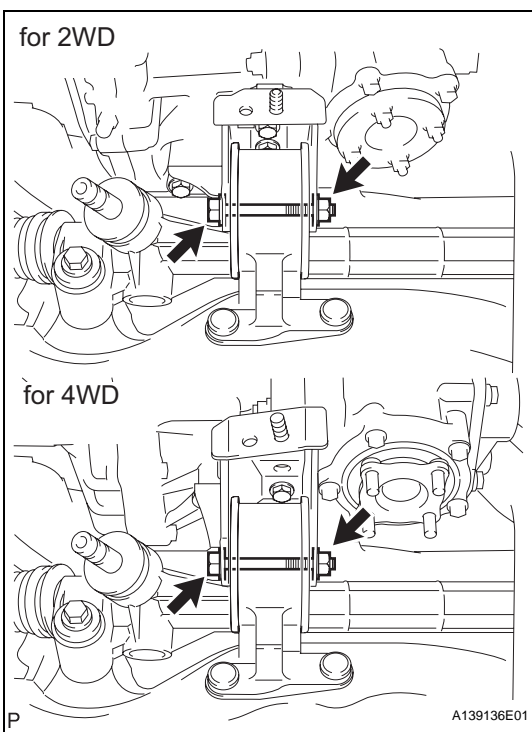
- (k) Remove the sling device from the engine.

**45. REMOVE FRONT CROSSMEMBER SUB-ASSEMBLY**

- (a) Install a chain block.



- (b) Remove the bolt, nut and crossmember.

**46. REMOVE FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY**

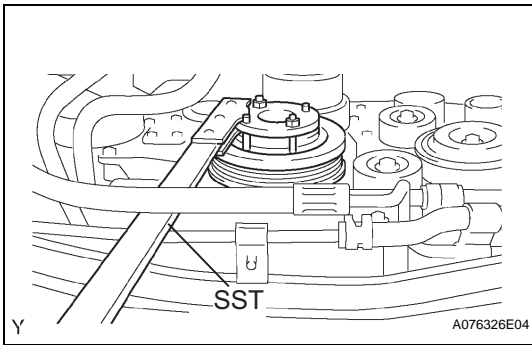
- (a) Remove the bolt and suspension crossmember.

**47. REMOVE ENGINE WIRE**

- (a) Remove the engine wire from the engine.

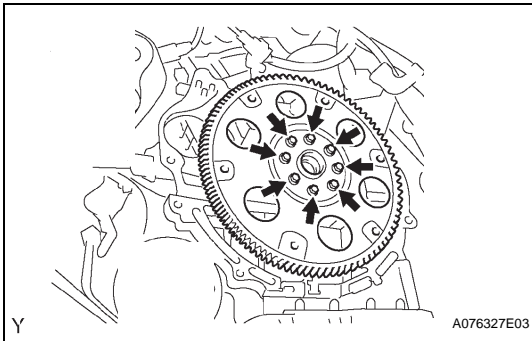
**48. REMOVE STARTER ASSEMBLY (See page [ST-6](#))****49. REMOVE TRANSFER ASSEMBLY (for 4WD) (See page [TF-60](#))****50. REMOVE AUTOMATIC TRANSAXLE ASSEMBLY**

- (a) 2WD:  
Remove the automatic transaxle (see page [AX-172](#)).
- (b) 4WD:  
Remove the automatic transaxle (see page [AX-173](#)).



## 51. REMOVE DRIVE PLATE AND RING GEAR SUB-ASSEMBLY

- (a) Using SST, hold the crankshaft.  
**SST 09213-70011, 09330-00021**



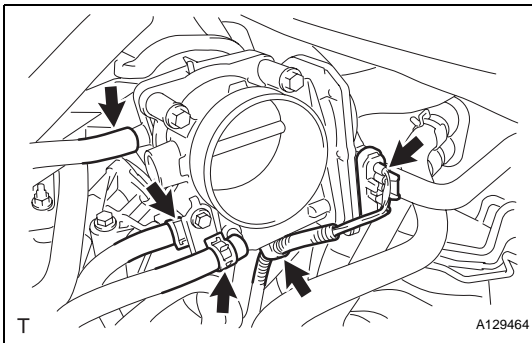
- (b) Remove the 8 bolts, front spacer, drive plate and rear spacer.

### NOTICE:

**Do not reuse the bolts.**

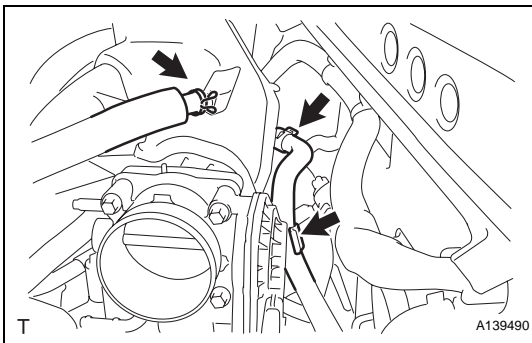
## 52. INSTALL ENGINE TO ENGINE STAND

- (a) Install the engine to an engine stand. Remove the sling device and chain block from the engine.

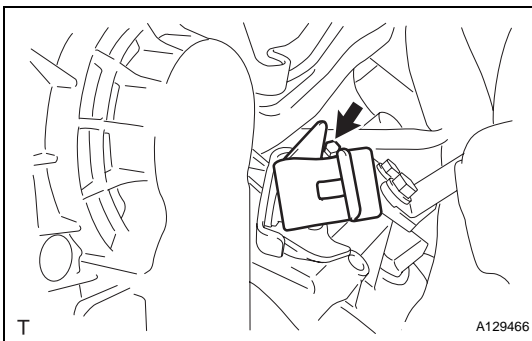


## 53. REMOVE INTAKE AIR SURGE TANK ASSEMBLY

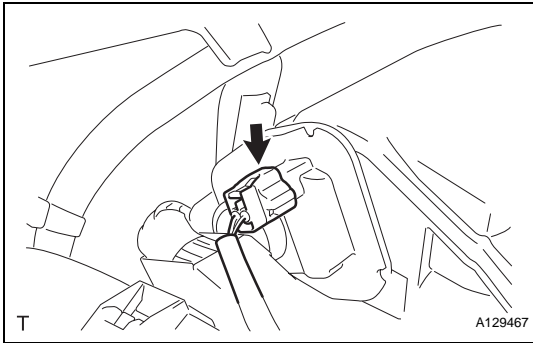
- (a) Disconnect the 2 water by-pass hoses from the throttle body.  
 (b) Disconnect the vapor feed hose.  
 (c) Disconnect the throttle body connector and clamp.



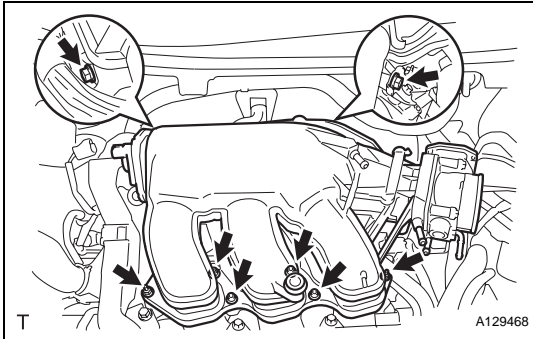
- (d) Disconnect the No. 2 ventilation hose.  
 (e) Disconnect the union to check valve hose.



- (f) Remove the bolt and vacuum hose clamp.



(g) Disconnect the connector.



(h) Using a 5 mm socket hexagon wrench, remove the 4 bolts.

(i) Remove the 2 nuts, 2 bolts and surge tank.

(j) Remove the gasket from the surge tank.

#### 54. REMOVE IGNITION COIL ASSEMBLY

(a) Remove the 6 bolts and 6 coils from the cylinder head.

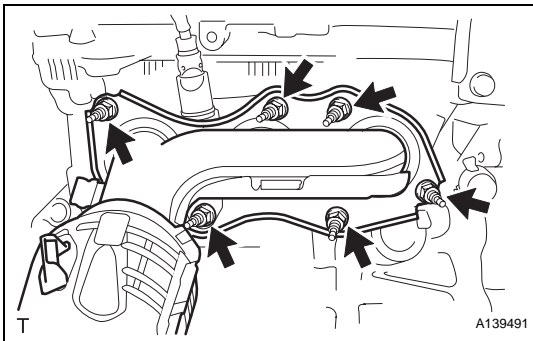
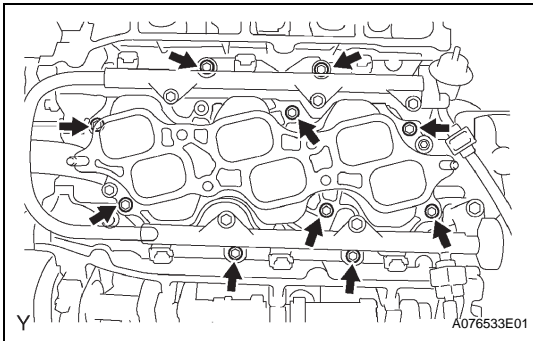
#### 55. REMOVE NO. 2 ENGINE MOUNTING STAY RH

(a) Remove the bolt and mounting stay.

#### 56. REMOVE FUEL INJECTOR ASSEMBLY (See page [FU-14](#))

#### 57. REMOVE INTAKE MANIFOLD

(a) Remove the 6 bolts, 4 nuts, intake manifold and 2 gaskets.



#### 58. REMOVE EXHAUST MANIFOLD SUB-ASSEMBLY RH

(a) Disconnect the air fuel ratio sensor connector clamp.

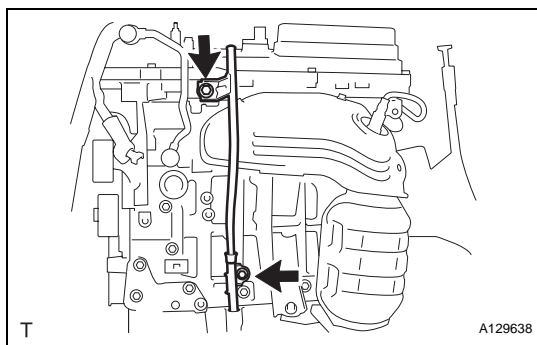
(b) Uniformly loosen and remove the 6 nuts.

(c) Remove the manifold and gasket.

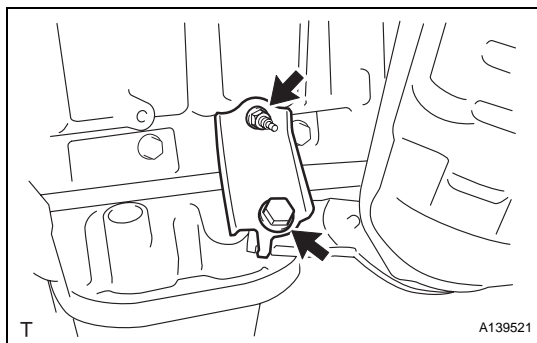
#### 59. REMOVE FAN AND GENERATOR V BELT (See page [EM-8](#))

#### 60. REMOVE COMPRESSOR WITH PULLEY ASSEMBLY (See page [AC-220](#))

#### 61. REMOVE GENERATOR ASSEMBLY (See page [CH-12](#))

**62. REMOVE OIL DIPSTICK GUIDE**

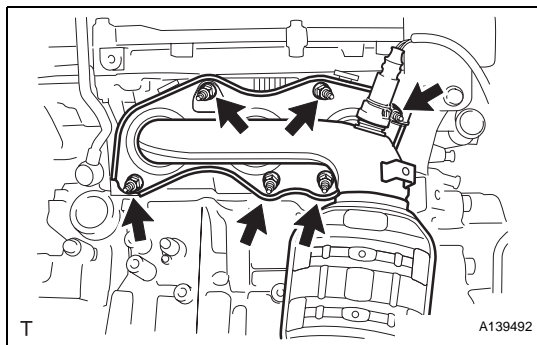
- (a) Remove the dipstick.
- (b) Remove the 2 bolts, and the No. 1 and No. 2 guides.
- (c) Remove the O-rings from the guide.

**63. REMOVE NO. 2 MANIFOLD STAY**

- (a) Remove the bolt, nut and manifold stay.

**64. REMOVE NO. 2 EXHAUST MANIFOLD HEAT INSULATOR**

- (a) Remove the 3 bolts and insulator.

**65. REMOVE EXHAUST MANIFOLD SUB-ASSEMBLY LH**

- (a) Uniformly loosen and remove the 6 nuts.
- (b) Remove the manifold and gasket.

**66. REMOVE ENGINE MOUNTING BRACKET RH**

- (a) Remove the 3 bolts and bracket.

**67. REMOVE DRIVE SHAFT BEARING BRACKET**

- (a) Remove the 3 bolts and drive shaft bearing bracket.

**68. REMOVE V-RIBBED BELT TENSIONER ASSEMBLY**

- (a) Remove the 5 bolts and V-ribbed belt tensioner assembly.

**69. REMOVE NO. 2 TIMING GEAR COVER**

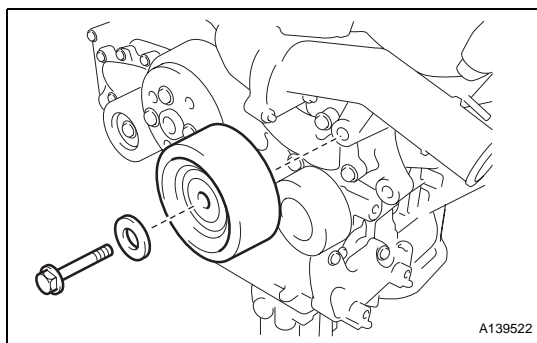
- (a) Remove the 2 bolts and gear cover.

**70. REMOVE NO. 2 IDLER PULLEY SUB-ASSEMBLY**

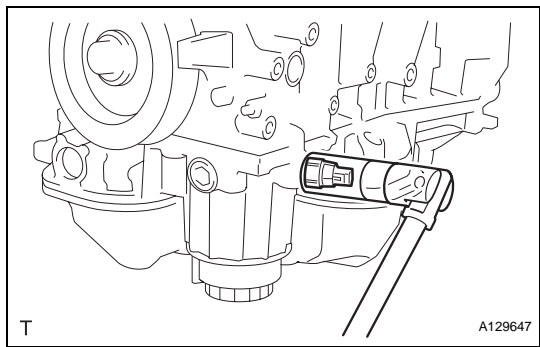
- (a) Remove the bolt, plate and idler pulley.

**71. REMOVE WATER PUMP PULLEY (See page [CO-12](#))****72. REMOVE NO. 1 FRONT ENGINE MOUNTING BRACKET LH**

- (a) Remove the 6 bolts and bracket.



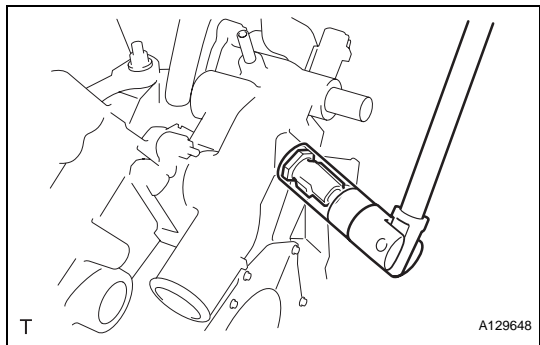




**73. REMOVE ENGINE OIL PRESSURE SWITCH ASSEMBLY**

- (a) Using a 24 mm deep socket wrench, remove the pressure switch.

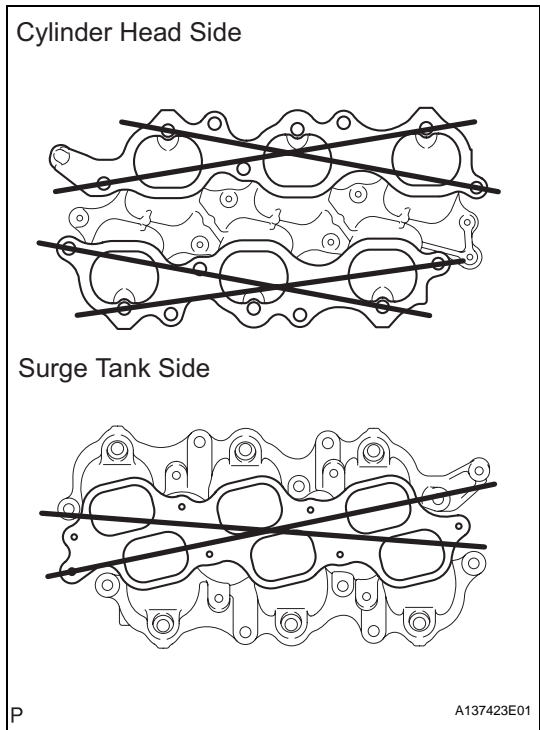
**74. REMOVE KNOCK SENSOR (See page ES-459)**



**75. REMOVE ENGINE COOLANT TEMPERATURE SENSOR**

- (a) Using a 19 mm deep socket wrench, remove the sensor and gasket.

EM



**INSPECTION**

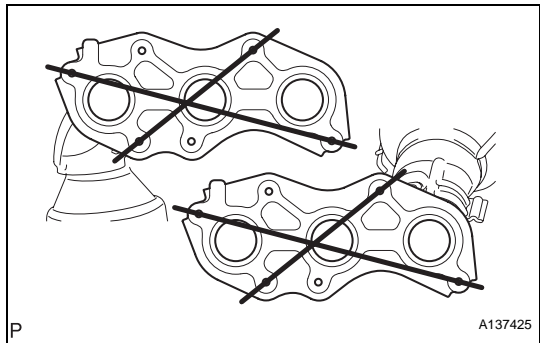
**1. INSPECT INTAKE MANIFOLD**

- (a) Using a precision straightedge and feeler gauge, measure the warpage of the contact surface of the cylinder head and intake air surge tank.

**Maximum warpage**

Item	Specified Condition
Intake manifold side	0.8 mm (0.031 in.)
Cylinder head side	0.2 mm (0.008 in.)

If the warpage is greater than the maximum, replace the manifold.



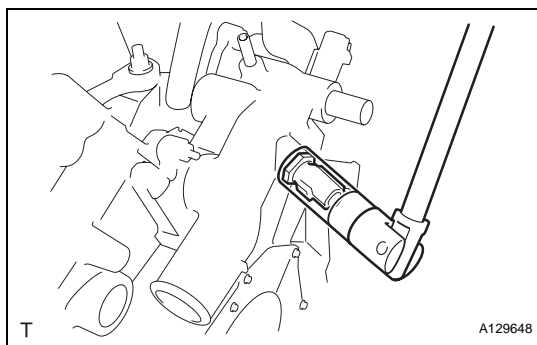
**2. INSPECT EXHAUST MANIFOLD**

- (a) Using a precision straightedge and feeler gauge, measure the surface contacting the cylinder head for warpage.

**Maximum warpage:**

**0.70 mm (0.0028 in.)**

If the warpage is greater than the maximum, replace the manifold.



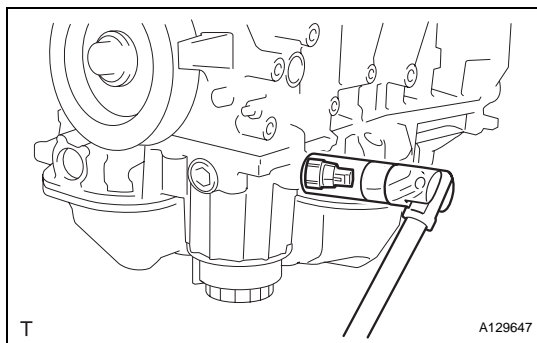
## INSTALLATION

### 1. INSTALL ENGINE COOLANT TEMPERATURE SENSOR

- (a) Using a 19 mm deep socket wrench, install the sensor and a new gasket.

**Torque: 20 N\*m (204 kgf\*cm, 14 ft.\*lbf)**

### 2. INSTALL KNOCK SENSOR (See page [ES-459](#))



### 3. INSTALL ENGINE OIL PRESSURE SWITCH ASSEMBLY

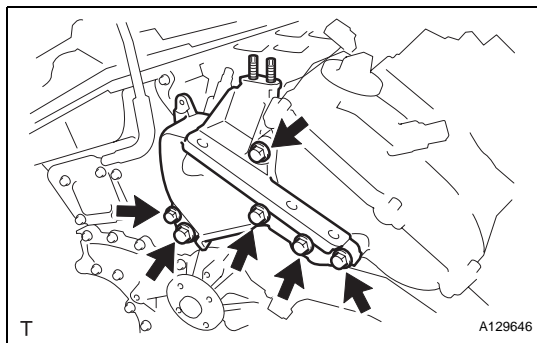
- (a) Clean the threads of the oil pressure switch. Apply adhesive to 2 or 3 threads of the oil pressure switch.

**Adhesive:**

**Toyota Genuine Adhesive 1344, Three Bond 1344 or Equivalent**

- (b) Using a 24 mm deep socket wrench, install the oil pressure switch.

**Torque: 21 N\*m (214 kgf\*cm, 15 ft.\*lbf)**

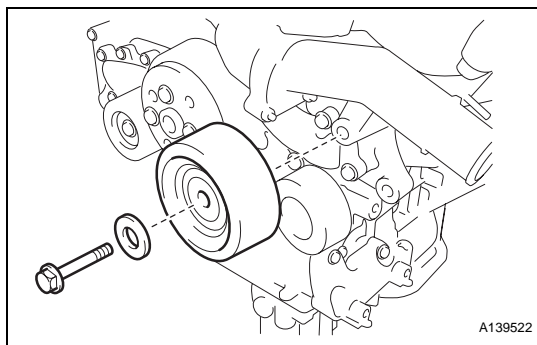


### 4. INSTALL NO. 1 FRONT ENGINE MOUNTING BRACKET LH

- (a) Install the mounting bracket with the 6 bolts.

**Torque: 54 N\*m (551 kgf\*cm, 40 ft.\*lbf)**

### 5. INSTALL WATER PUMP PULLEY (See page [CO-14](#))



### 6. INSTALL NO. 2 IDLER PULLEY SUB-ASSEMBLY

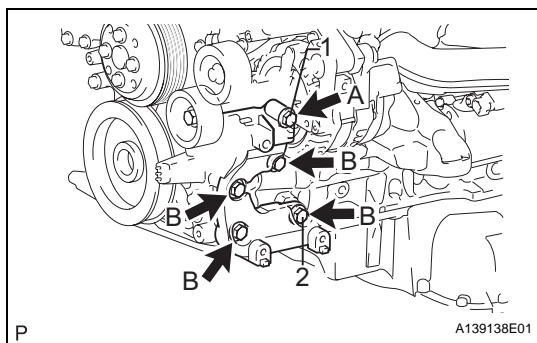
- (a) Install the idler pulley and cover plate with the bolt.

**Torque: 43 N\*m (438 kgf\*cm, 32 ft.\*lbf)**

### 7. INSTALL NO. 2 TIMING GEAR COVER

- (a) Install the gear cover with the 2 bolts.

**Torque: 6.0 N\*m (61 kgf\*cm, 53 in.\*lbf)**



### 8. INSTALL V-RIBBED BELT TENSIONER ASSEMBLY

- (a) Temporarily install the V-ribbed belt tensioner with the 5 bolts.

- (b) Install the V-ribbed belt tensioner by tightening the bolt 1 and bolt 2 in the order shown in the illustration.

**Torque: 43 N\*m (438 kgf\*cm, 32 ft.\*lbf)**

- (c) Tighten the other bolts.

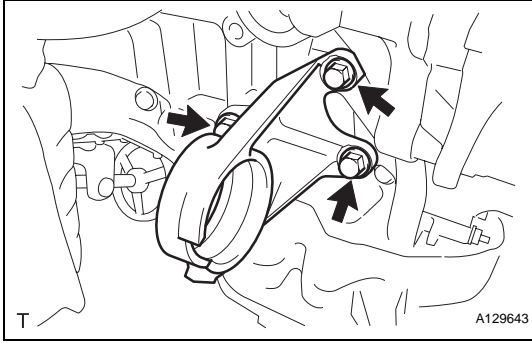
**Torque: 43 N\*m (438 kgf\*cm, 32 ft.\*lbf)**

**Each bolt length is as follows:**

A	70 mm (2.76 in.)
---	------------------

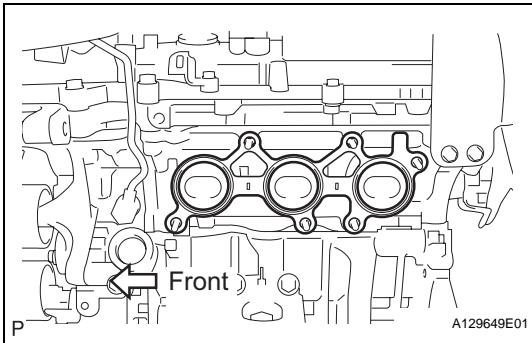
B

35 mm (1.37 in.)

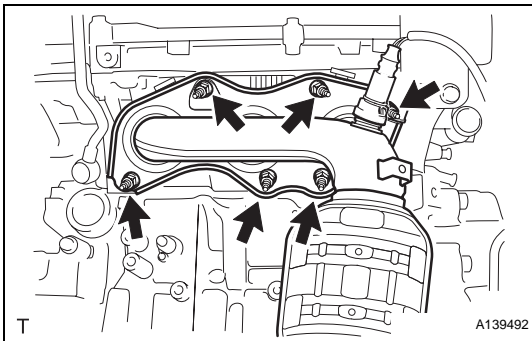
**9. INSTALL DRIVE SHAFT BEARING BRACKET**

- (a) Install the drive shaft bearing bracket with the 3 bolts.

**Torque: 64 N\*m (653 kgf\*cm, 47 ft.\*lbf)**

**10. INSTALL EXHAUST MANIFOLD SUB-ASSEMBLY LH**

- (a) Install a new gasket as shown in the illustration.



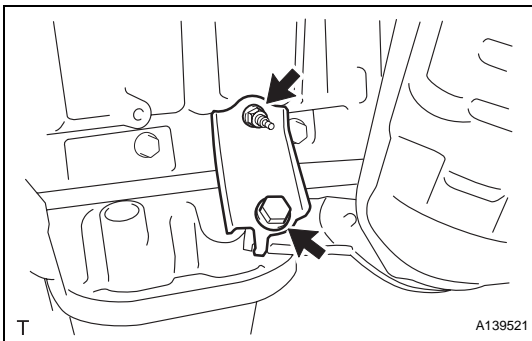
- (b) Install the manifold with the 6 nuts.

**Torque: 21 N\*m (214 kgf\*cm, 15 ft.\*lbf)**

**11. INSTALL NO. 2 EXHAUST MANIFOLD HEAT INSULATOR**

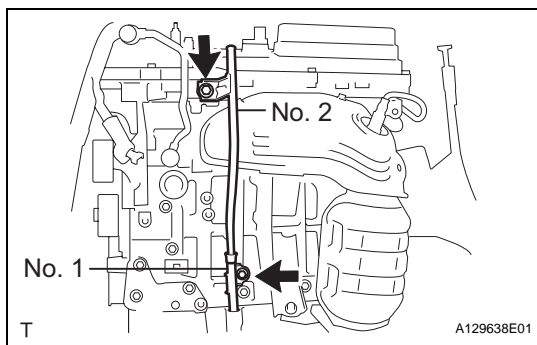
- (a) Install the No. 2 heat insulator with the 3 bolts.

**Torque: 8.5 N\*m (87 kgf\*cm, 75 in.\*lbf)**

**12. INSTALL NO. 2 MANIFOLD STAY**

- (a) Install the No. 2 manifold stay with the bolt and nut.

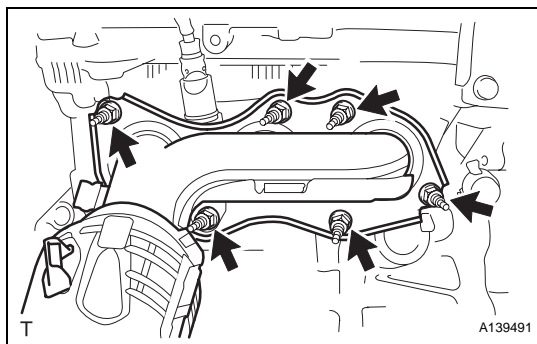
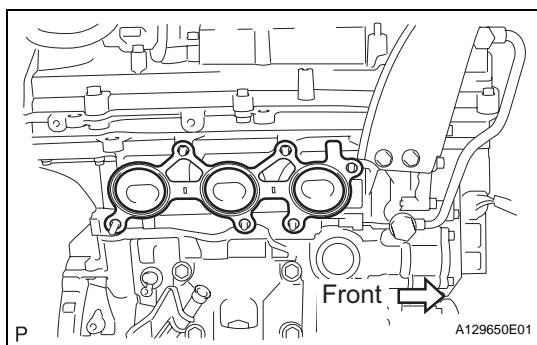
**Torque: 34 N\*m (347 kgf\*cm, 25 ft.\*lbf)**

**13. INSTALL OIL DIPSTICK GUIDE**

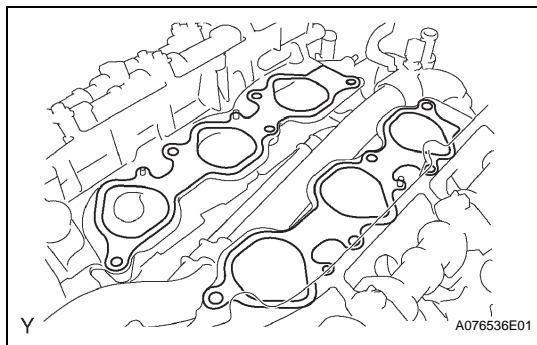
- Install 2 new O-rings to the guide.
- Apply a light coat of engine oil to the O-rings.
- Push in the guide end into the guide hole.
- Install the No. 1 guide with the bolt.  
**Torque: 21 N\*m (214 kgf\*cm, 15 ft.\*lbf)**
- Install the No. 2 guide with the bolt.  
**Torque: 21 N\*m (214 kgf\*cm, 15 ft.\*lbf)**
- Install the dipstick.

**14. INSTALL GENERATOR ASSEMBLY (See page CH-19)****15. INSTALL COMPRESSOR WITH PULLEY ASSEMBLY (See page AC-221)****16. INSTALL FAN AND GENERATOR V BELT (See page EM-8)****17. INSTALL EXHAUST MANIFOLD SUB-ASSEMBLY RH**

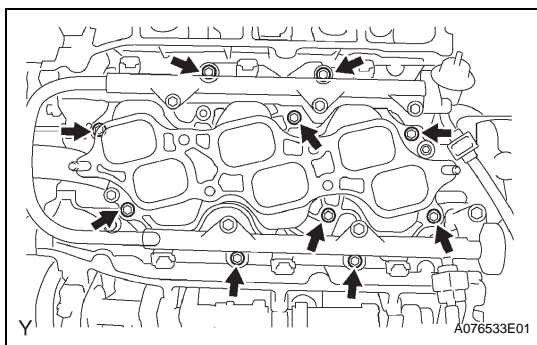
- Install a new gasket as shown in the illustration.



- Install the manifold with the 6 nuts.  
**Torque: 21 N\*m (214 kgf\*cm, 15 ft.\*lbf)**

**18. INSTALL INTAKE MANIFOLD**

- Set a new gasket on each cylinder head.  
**NOTICE:**
  - Align the port holes of the gasket and cylinder head.
  - Be careful of the installation direction.
- Set the intake manifold on the cylinder heads.



- (c) Install and uniformly tighten the 6 bolts and 4 nuts in several passes.

**Torque: 21 N\*m (214 kgf\*cm, 15 ft.\*lbf)**

- (d) Connect the 6 fuel injector connectors.

**19. INSTALL FUEL INJECTOR ASSEMBLY (See page [FU-16](#))**

**20. INSTALL NO. 2 ENGINE MOUNTING STAY RH**

- (a) Install the mounting stay with the bolt.

**Torque: 21 N\*m (214 kgf\*cm, 15 ft.\*lbf)**

**21. INSTALL IGNITION COIL ASSEMBLY**

- (a) Install the 6 ignition coils with the 6 bolts to the cylinder head.

**Torque: 10 N\*m (102 kgf\*cm, 7 ft.\*lbf)**

**22. INSTALL INTAKE AIR SURGE TANK ASSEMBLY**  
**NOTICE:**

**Make sure there is no oil on the bolts. If there is oil on the bolts, clean them before installing them.**

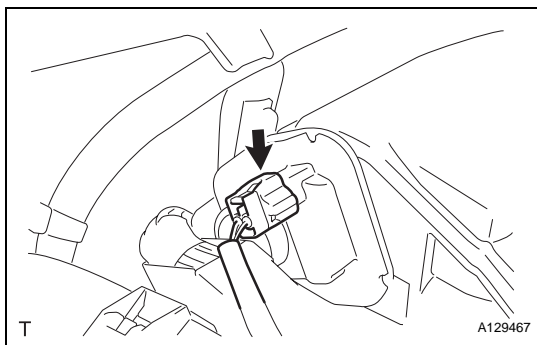
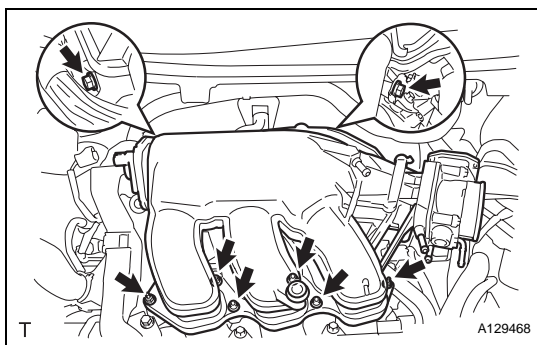
- (a) Install a new gasket to the surge tank.  
(b) Using a 5 mm hexagon socket wrench, install the 4 bolts.

**Torque: 18 N\*m (184 kgf\*cm, 13 ft.\*lbf)**

- (c) Install the surge tank with the 2 nuts and 2 bolts.

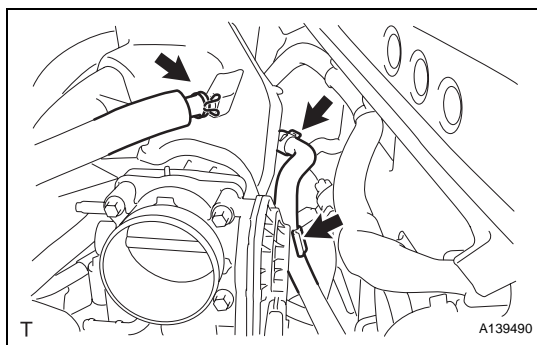
**Torque: 21 N\*m (214 kgf\*cm, 15 ft.\*lbf) for bolt  
16 N\*m (163 kgf\*cm, 12 ft.\*lbf) for nut**

- (d) Connect the connector.

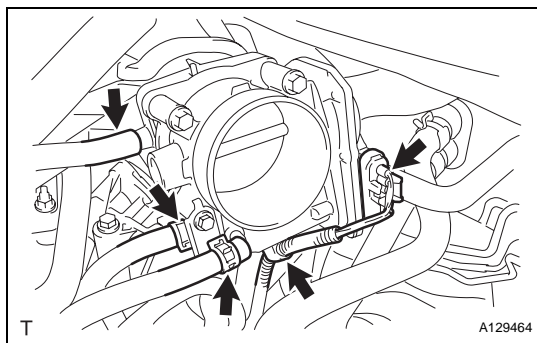


- (e) Install the vacuum hose clamp with the bolt.

**Torque: 5.4 N\*m (55 kgf\*cm, 48 in.\*lbf)**



- (f) Connect the union to check valve hose.
- (g) Connect the No. 2 ventilation hose.

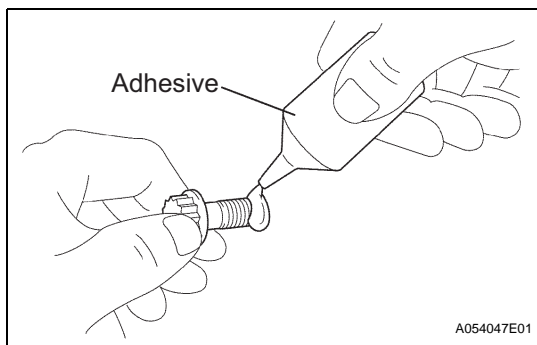


- (h) Install the clamp and connect the throttle body connector.
- (i) Connect the vapor feed hose.
- (j) Connect the 2 water by-pass hoses to the throttle body.

## 23. REMOVE ENGINE FROM ENGINE STAND

- (a) Install a sling device and chain block to the engine.
- (b) Remove the engine from the engine stand.

EM

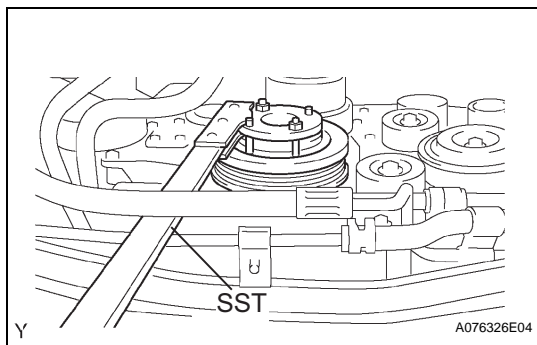


## 24. INSTALL DRIVE PLATE AND RING GEAR SUB-ASSEMBLY

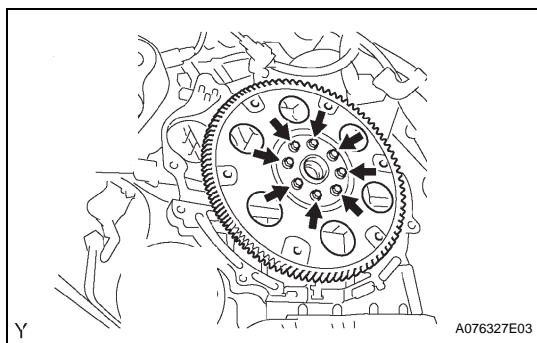
- (a) Clean the bolt and its hole.
- (b) Apply adhesive to 2 or 3 threads of the bolt end.

### Adhesive:

**Toyota Genuine Adhesive 1324, Three Bond 1324 or Equivalent**



- (c) Using SST, hold the crankshaft.  
**SST 09213-70011, 09330-00021**
- (d) Install the flywheel, drive plate and drive plate spacer on the crankshaft.



- (e) Uniformly install and tighten the 8 bolts in the sequence shown in the illustration.  
**Torque: 178 N\*m (1,815 kgf\*cm, 132 ft.\*lbf)**  
**NOTICE:**  
**Do not start the engine for at least 1 hour after the installation.**

## 25. INSTALL AUTOMATIC TRANSAXLE ASSEMBLY

- (a) 2WD:  
Install the automatic transaxle (see page [AX-174](#)).



- (b) 4WD:  
Install the automatic transaxle (see page [AX-175](#)).

**26. INSTALL TRANSFER ASSEMBLY (for 4WD) (See page [TF-75](#))**

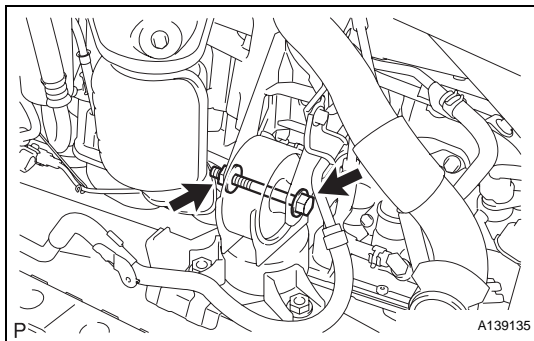
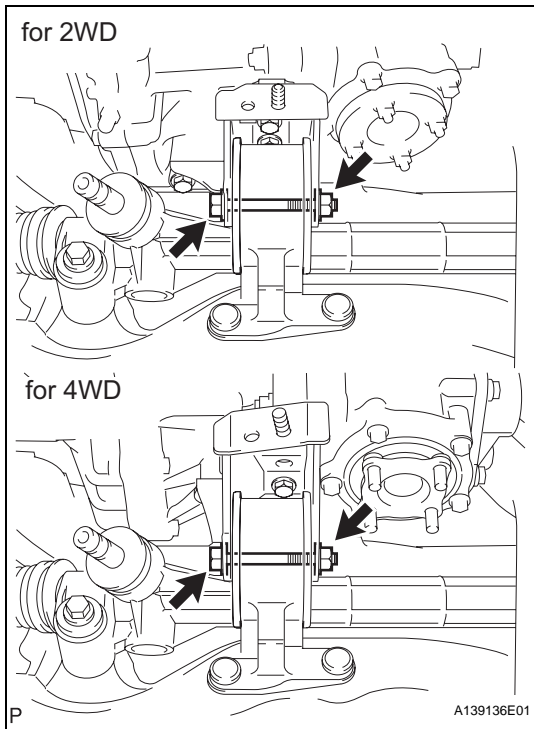
**27. INSTALL STARTER ASSEMBLY (See page [ST-14](#))**

**28. INSTALL ENGINE WIRE**

- (a) Install the engine wire to the engine.

**29. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY**

- (a) Attach the engine together with the transaxle to the suspension crossmember and mounting.  
(b) Install the bolt which secures the engine mounting bracket to the mounting insulator.  
**Torque: 95 N\*m (969 kgf\*cm, 70 ft.\*lbf)**



**30. INSTALL FRONT CROSSMEMBER SUB-ASSEMBLY**

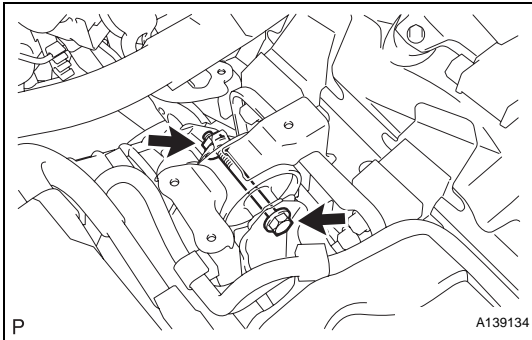
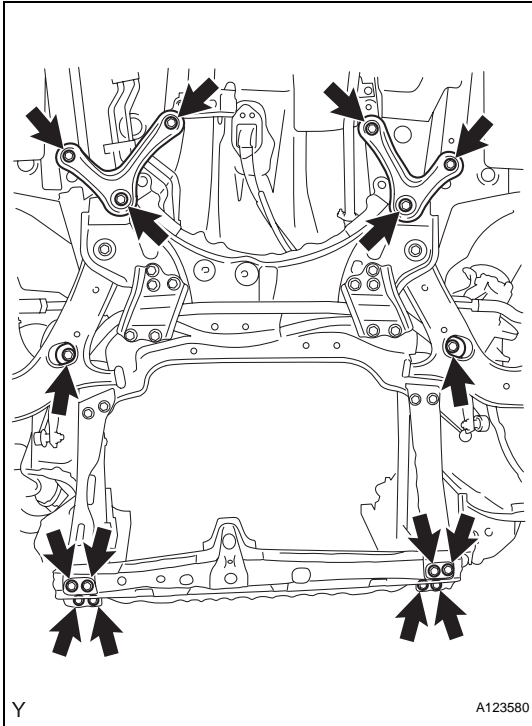
- (a) Install the bolt and nut which secures the engine mounting bracket to the mounting insulator.  
**Torque: 145 N\*m (1,479 kgf\*cm, 107 ft.\*lbf)**

**31. INSTALL ENGINE WITH TRANSAXLE**

- (a) Place the engine on an engine lifter.  
**HINT:**  
Place the engine on wooden blocks or an equivalent so that the engine is level.  
(b) Using the chain block, slowly install the engine to the vehicle and the intermediate shaft to the pinion.  
**CAUTION:**  
Do not raise the engine more than necessary. If the engine is raised excessively, the vehicle may also be lifted up.  
**NOTICE:**
- Make sure that the engine is clear of all wiring and hoses.

- While raising the engine into the vehicle, do not allow it to contact the vehicle.
- Align the matchmarks on the intermediate shaft and pinion.

- Temporarily install the suspension member and crossmember with the 10 bolts.
- Temporarily install the member brace rear RH and LH with the 6 bolts.

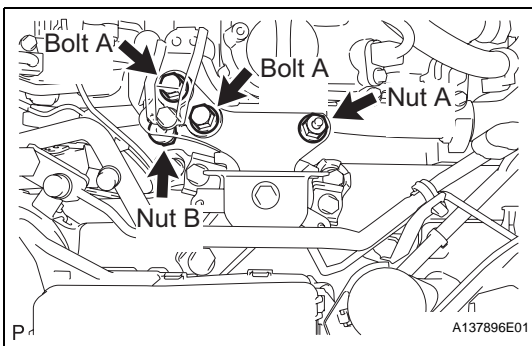


- Install the engine mounting insulator LH with the bolt and nut.

**Torque: 56 N\*m (571 kgf\*cm, 41 ft.\*lbf)**

**NOTICE:**

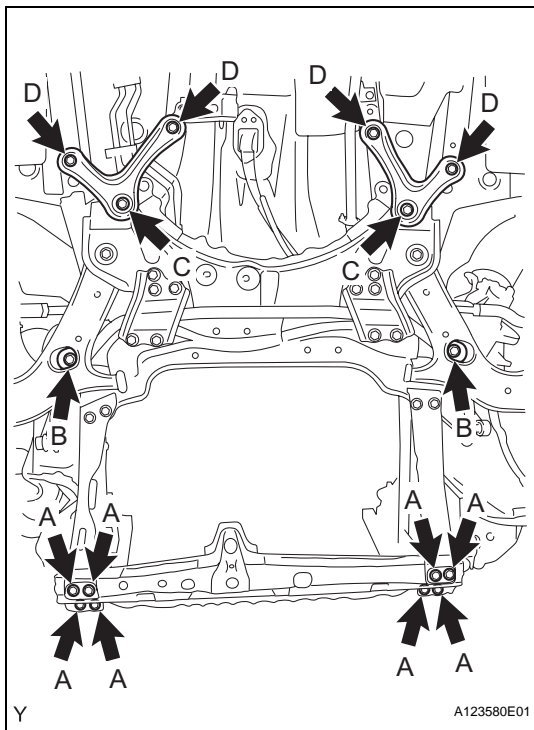
**While holding the bolt in place, tighten the nut.**



- Install the engine mounting insulator RH with the 2 bolts and 2 nuts.

**Torque: 95 N\*m (969 kgf\*cm, 70 ft.\*lbf) for bolt and nut A**

**52 N\*m (530 kgf\*cm, 38 ft.\*lbf) for nut B**



- (g) Tighten the suspension member and crossmember's bolts.  
**Torque: 96 N\*m (979 kgf\*cm, 71 ft.\*lbf) for bolt A**  
**145 N\*m (1,478 kgf\*cm, 107 ft.\*lbf) for bolt B**
- (h) Tighten the member brace rear's bolts.  
**Torque: 145 N\*m (1,478 kgf\*cm, 107 ft.\*lbf) for bolt C**  
**93 N\*m (948 kgf\*cm, 69 ft.\*lbf) for bolt D**
- (i) Remove the sling device and chain block.
- (j) Remove the 2 bolts and No. 1 and No. 2 engine hangers.

### 32. INSTALL FRONT DRIVE SHAFT LH

- (a) 2WD:  
Install the drive shaft (see page [DS-33](#)).
- (b) 4WD:  
Install the drive shaft (see page [DS-66](#)).

### 33. INSTALL FRONT DRIVE SHAFT RH

- (a) 2WD:  
Install the drive shaft (see page [DS-33](#)).
- (b) 4WD:  
Install the drive shaft (see page [DS-66](#)).

### 34. CONNECT TIE ROD END SUB-ASSEMBLY LH (See page [PS-45](#))

### 35. CONNECT TIE ROD END SUB-ASSEMBLY RH (See page [PS-45](#))

### 36. CONNECT STEERING INTERMEDIATE SHAFT (See page [PS-44](#))

### 37. CONNECT FRONT STABILIZER LINK ASSEMBLY LH (See page [SP-31](#))

### 38. CONNECT FRONT STABILIZER LINK ASSEMBLY RH (See page [SP-31](#))

### 39. INSTALL FRONT AXLE HUB NUT LH

- (a) Install the hub nut (see page [AH-11](#)).

### 40. INSTALL FRONT AXLE HUB NUT RH

- (a) Install the hub nut (see page [AH-11](#)).

### 41. INSTALL FRONT WHEELS

### 42. INSTALL PROPELLER WITH CENTER BEARING SHAFT ASSEMBLY (See page [PR-5](#))

### 43. INSTALL CENTER EXHAUST PIPE ASSEMBLY (See page [EX-4](#))

### 44. INSTALL FRONT EXHAUST PIPE ASSEMBLY (See page [EX-4](#))

### 45. CONNECT TRANSMISSION CONTROL CABLE ASSEMBLY

- (a) 2WD:  
Connect the control cable (see page [AX-154](#)).

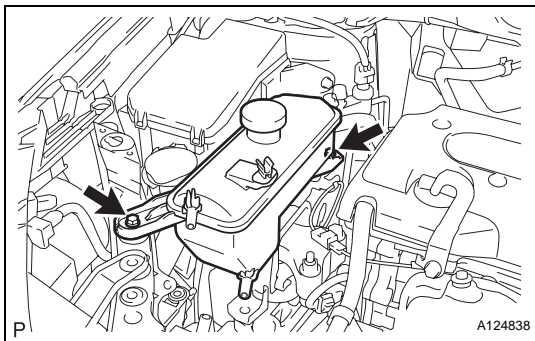
- (b) 4WD:  
Connect the control cable (see page [AX-154](#)).

**46. CONNECT RADIATOR HOSE INLET****47. CONNECT RADIATOR HOSE OUTLET****48. CONNECT OIL COOLER HOSE****49. CONNECT SUCTION HOSE SUB-ASSEMBLY** (See page [AC-221](#))**50. INSTALL DISCHARGE HOSE SUB-ASSEMBLY** (See page [AC-221](#))**51. INSTALL RADIATOR RESERVOIR TANK ASSEMBLY**

- (a) Install the reservoir tank with the 2 bolts.  
**Torque: 5.0 N\*m (51 kgf\*cm, 44 in.\*lbf)**
- (b) Connect the 2 hoses

**52. INSTALL ECM** (See page [ES-471](#))**53. CONNECT HOSES AND CONNECTORS**

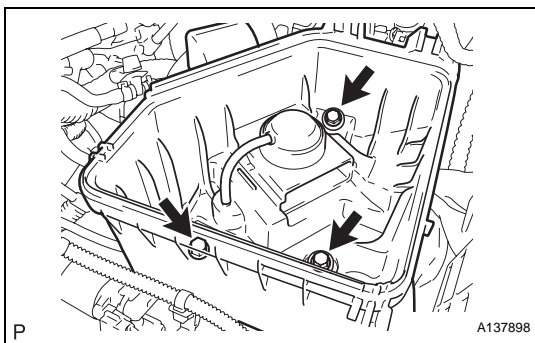
- (a) Connect the 2 ECM connectors.
- (b) Connect the 2 heater hoses.
- (c) Connect the fuel hoses.
- (d) Connect the starter wire with the nut.  
**Torque: 9.8 N\*m (100 kgf\*cm, 7 ft.\*lbf)**
- (e) Connect the 3 connectors and wire with the nut.  
**Torque: 12 N\*m (122 kgf\*cm, 9 ft.\*lbf)**
- (f) Install the engine room junction block cover (upper).

**54. INSTALL AIR CLEANER CASE**

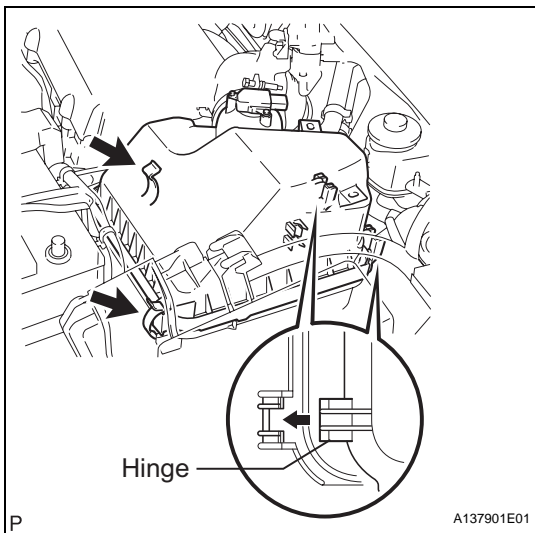
- (a) Install the air cleaner case with the 3 bolts.  
**Torque: 5.0 N\*m (51 kgf\*cm, 44 in.\*lbf)**
- (b) Connect the harness clamp.

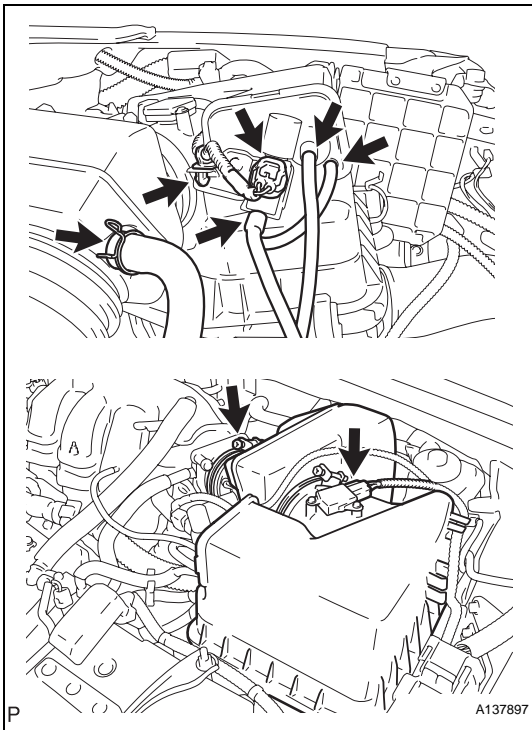
**55. INSTALL AIR CLEANER CAP SUB-ASSEMBLY**

- (a) Install the air cleaner filter element onto the air cleaner case.

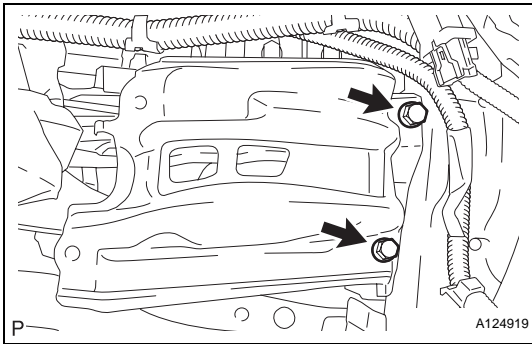


- (b) Insert the hinge part of the air cleaner cap into the air cleaner case, then hang the 2 hook clamps.



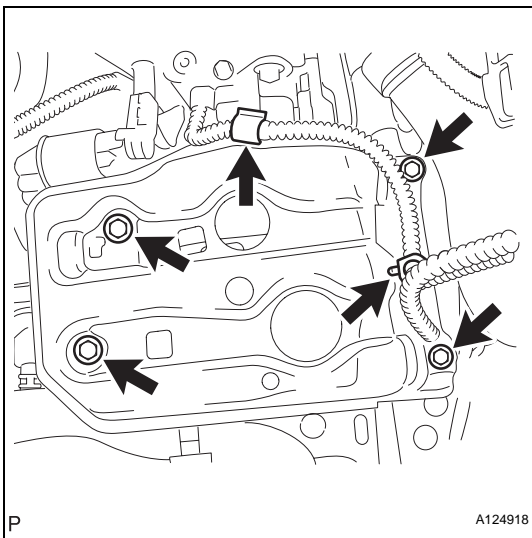


- (c) Tighten the No. 1 air cleaner hose clamp.
- (d) Connect the No. 2 ventilation hose to the air cleaner hose.
- (e) Connect the wire harness clamp and 3 vacuum hoses.
- (f) Connect the VSV (intake air control) connector.
- (g) Connect the mass air flow meter connector.



## 56. INSTALL BATTERY BRACKET REINFORCEMENT

- (a) Install the bracket reinforcement with the 2 bolts.  
**Torque: 19 N\*m (194 kgf\*cm, 14 ft.\*lbf)**



## 57. INSTALL FRONT BATTERY BRACKET

- (a) Install the bracket front with the 4 bolts.  
**Torque: 19 N\*m (194 kgf\*cm, 14 ft.\*lbf)**
- (b) Attach the 2 wire harness clamps.

## 58. INSTALL BATTERY

## 59. REMOVE BATTERY CLAMP SUB-ASSEMBLY

- (a) Attach the hook of the battery clamp to the battery bracket front.
- (b) Temporarily tighten the nut and install the bolt.
- (c) Adjust the battery clamp's position.
- (d) Fully tighten the nut and bolt.  
**Torque: 5.0 N\*m (51 kgf\*cm, 44 in.\*lbf)**
- (e) Attach the 2 wire harness clamps.

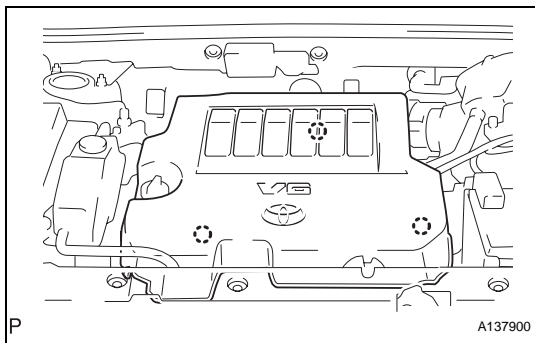
## 60. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

## 61. INSTALL HOOD SUB-ASSEMBLY

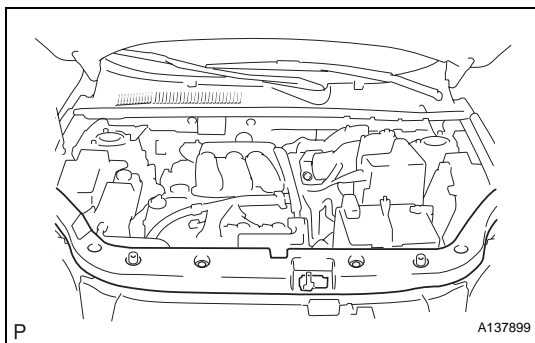
- (a) Install the hood (see page [ED-7](#)).
- (b) Adjust the hood (see page [ED-5](#)).

- 
- 62. ADD AUTOMATIC TRANSAXLE FLUID**  
(a) 2WD:  
Add automatic transmission fluid (see page [AX-177](#)).  
(b) 4WD:  
Add automatic transmission fluid (see page [AX-178](#)).
- 63. ADD TRANSFER OIL (for 4WD) (See page [TF-45](#))**
- 64. ADD ENGINE OIL (See page [LU-6](#))**
- 65. ADD ENGINE COOLANT (See page [CO-8](#))**
- 66. CHARGE REFRIGERANT (See page [AC-172](#))**
- 67. CHECK FOR LEAKAGE OF REFRIGERANT (See page [AC-173](#))**
- 68. CHECK FOR ENGINE OIL LEAKS (See page [LU-6](#))**
- 69. CHECK FOR ENGINE COOLANT LEAKS (See page [CO-1](#))**
- 70. CHECK FOR FUEL LEAKS**
- 71. INSPECT EXHAUST GAS LEAKS**
- 72. INSPECT SHIFT LEVER POSITION**  
(a) 2WD:  
Inspect the shift lever position (see page [AX-159](#)).  
(b) 4WD:  
Inspect the shift lever position (see page [AX-158](#)).
- 73. ADJUST TRANSMISSION CONTROL CABLE**  
(a) 2WD:  
Adjust the shift lever position (see page [AX-159](#)).  
(b) 4WD:  
Adjust the shift lever position (see page [AX-159](#)).
- 74. INSTALL FRONT FLOOR COVER (See page [FU-39](#))**
- 75. INSTALL NO. 2 ENGINE UNDER COVER**  
(a) Install the under cover with the 2 clips.
- 76. INSTALL REAR ENGINE UNDER COVER LH**  
(a) Install the under cover with the 2 clips.
- 77. INSTALL REAR ENGINE UNDER COVER RH**  
(a) Install the under cover with the 2 clips.
- 78. INSTALL NO. 1 ENGINE UNDER COVER**  
(a) Install the under cover with the 4 bolts and 12 clips.



**79. INSTALL V-BANK COVER SUB-ASSEMBLY**

- (a) Attach the 3 clips to install the engine cover.

**80. INSTALL RADIATOR SUPPORT OPENING COVER**

- (a) Install the cover with the 9 clips.

**81. ADJUST FRONT WHEEL ALIGNMENT**

- (a) Adjust the front wheel alignment (see page [SP-3](#)).

**82. INSPECT IDLE SPEED (See page [EM-2](#))**